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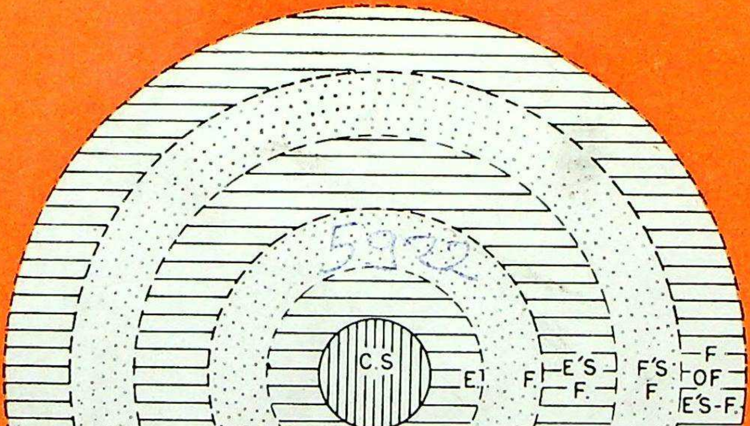
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B.G. TAMASKAR

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B. G. TAMASKAR

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DEDICATED
TO
THE CHERISHED MEMORY OF
MY LATE MOTHER, JAYANTĪ
BĀĪ TĀMASKAR

Preface

THE author takes this opportunity to express his grateful thanks to the editors of all the following journals for their ready permission for the reproduction of the following essays :

1. Geographical Knowledge in the Upanishads (*National Geographical Journal of India*, Varanasi-5).
2. Geographical Data in the Jātaka Tales (*The Quarterly Review of Historical Studies*, Calcutta).
3. Kautilya's Theory of Inter-State and International Geo-Politics (*Proceedings of Seminar No. S-35 of the International Geographical Congress*, Nagpur, 1968).
4. Some Geo-Political Concepts of Kautilya (*The Quarterly Review of Historical Studies*, Calcutta).
5. The Geographical Genesis of Hell in the Mahā-Śiva-Purāṇa (*The Geographical Knowledge*, Kanpur-2).
6. Human Dwellings and Related Cultural Features in the Mahā-Śiva-Purāṇa (*The Bombay Geographical Magazine*, Bombay).
7. Periodic Marketing System in Mediaeval Mahārāṣtra (*The Geographical Review of India*, Calcutta-700 019).
8. The Concept of Boundaries in India Through Ages (*The Indian Political Science Review*, New Delhi).
9. Life of the People as Depicted in Mahā-Śiva-Purāṇa (*The Quarterly Journal of the Mythve Society*, Bangalore).
10. Changing Functional of Maharaṣtra Cave Settlements (*The Geographical Review of India*, Calcutta-700019).

I record my spontaneous thanks to M/s. Idarah-i-Adabiyat-i-Delli, Delhi for their prompt and ready permission to reproduce Chapter XV on *Historical Geography of Malik Ambar's Territory from Life and Work of Malik Ambar*, which had already appeared in the issues of the Journal of Indian History, Trivandrum.

The remaining essays are appearing in this collection for the first time.

It took quite a few months to recast all the essays, except on *Periodic Marketing Systems in Mediaeval Mahārāṣtra* into the chosen format by adding an abstract at the beginning of each essay, references in the body of the text and notes and references at the end of each essay. The compilation of the index is equally time-consuming task for any single-handed person.

The practical utility of historical geography has been considered a suspect till recently. The publication of the paper on *Florida's Seaward Boundary* by Louis De Vorsey, Jr. in the Professional Geographer, Vol. XXV, No. 3, August, 1973 has claimed this subfield of study under the rubric of Applied Geography. The author states that a historical geographer "was deliberately sought out by an agency of the United States Federal Government in recent months to an applied task calling for methodology and expertise peculiar to historical geography" and "it was applied in a litigation before the Supreme Court of the United States".

The author has avoided to enter into the debate, raging on the nature, scope and methodology of historical geography. However, he has listed references in the select bibliography, appended at the end of this collection, of studies with a view to stimulate and promote research work in this subfield of discipline.

The author feels grateful to the Education Department of Mahārastra State, a succession of Principals in the Vidarbha Mahāvidyālaya, Amrāvatī, *viz*., the late Dr. M.G Marāthey, Dr, S. Mookerjee and Dr. S. Naimuddīn, for the encouragement in these studies on historical geography during their tenures. He is specially indebted to Dr. G.S. Bedagkar for his helpful attitude towards and kind patronage to similar studies during the author's term of assignment under the Retired Teachers' Scheme of University Grants Commission at the Vidarbha Mahāvidyālaya, Amrāvatī. He also acknowledges the valuable cartographic assistance rendered to him by Shri V.R. Garde, former Artist of the Geography Department of Vidarbha Mahāvidyālaya and Late Shri P.S. Āwate, practising cartographer at Chembur, Bombay-400 071.

The author will be failing in his duty, if he does not make a pointed and reverential reference to the Late Dr. P.K. Gode, Curator, Bhāndārkar Oriental Research Institute, Pune, who entertained a fond hope that these studies are calculated to be helpful in the reconstruction of the cultural history of India. It is for the reader to assess how far these studies have proved worthy of this expectation.

Lastly, my wife, Sau. Kumudinī Tāmaskār, has put up with me through all my trials and tribulations with admirable patience and has shared partly the labour of the compilation. The author will consider his labours amply rewarded, if this collected work leads to further in-depth studies in historical geography of India in the light of the latest trend, conceptual framework, methodology and techniques in this subfield.

I also extend my sincere thanks to Shri K.L. Ambālkar for retyping the contents of this collection. I record my deep sense of appreciation to M/s. Inter-India Publications and M/s. B.N. Printers, for their co-operation.

26/8, Pune-Bombay Road,
Pune-411003.

B.G. TAMASKAR

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PART I

Ancient India

1

Geographical Knowledge in the Upanishads*

ABSTRACT

THE paper incorporates the concepts of the ancient Indians on the rising and setting of the Sun, directions, the spheroidity of the Earth, and its supportlessness in Space, the southward and northward march of the Sun athwart the Equator, the duration of the light of the Sun and darkness around the North Pole for six months, the spread of the Ocean around the Land, 'twice as large'. There are also distinct and explicit allusions to the *chakravartī kshetra* of the sovereign ruler in India, nomenclatures of parts of the country, seasons, tracts of adequate and inadequate amounts of rainfall, crops raised, minerals extracted and articles manufactured.

The *Upanishads* are works on religious meditation. Therefore, it is hardly possible to come across any exclusive or special portions devoted therein to the description of the Earth or its spatial features. Only incidently, by way of illustrations, geographical phenomena and matters are embodied in them. These geographical references have been systematically placed together in this paper so that we may be able to note how much the ancient Aryans knew about the Earth and certain geographical phenomena.

The point, which invites our first consideration, is that there is hardly any direct allusion to the spheroidicity of the Earth in the *Upanishads*, although their authors seem to have some vague concept about its spherical form. This can be gleaned from the description of the apparent revolution of the Sun and its northward (*Devayāṇa*) and southward (*Pitriyāṇa*) movement.

---

* Appeared in the National Geographical Journal of India, Varāṇasī, II-2, 1958.

The description of the rising and setting of the Sun is given in *Prapāthaka* III, *Khaṇda* 6 to 10 to the *Chāndogya-Upanishad* as follows :

1. "So long as the Sun rises in the east and sets in the west,......" (Sixth *Khaṇda*).
2. "So long as the Sun rises in the east and sets in the west, twice as long does it rise in the south and set in the north: ...." (Seventh *Khaṇda*).
3. "So long as the Sun rises in the south and sets in the north, twice as long does it rise in the west and set in the east........." (Eighth *Khaṇda*).
4. "So long as the Sun rises in the west and sets in the east, twice as long as it rises in the north and sets in the south :........." (Ninth *Khaṇda*).

   "So long as the Sun rises in the north and sets in the south, twice as long as does it rise; and set below;........." (Tenth *Khaṇda*) (*Maxmuller*, 1900).

It is difficult to follow the above discription closely, but it is manifest that the above-mentioned concept of rising and setting of the Sun will be absurd and meaningless without the spherical form of the Earth.

References to directions are contained in *Anuwākas* 20 to 24 of *Brāhmaṇa* 9, *Adhyāya* III of the *Brihadāraṇyaka-Upanishad*.

1. "Which is thy deity in the Eastern quarter ?"......*Āditya* (20).
2. "Which is thy deity in the Southern quarter ?"......*Yama* (21).
3. "Which is thy deity in the Western quarter ?"......*Varuṇa* (22).
4. "Which is thy deity in the Eastern quarter ?"......*Soma* (23).
5. "Which is thy deity in the Zenith ?"......*Agni* (24) (*Ibid.*)

The foregoing narration does not refer to the Nadir (*Adhara*) but it is implicit in the reference to the Zenith. The Zenith and the Nadir can hardly be conceived without the spheroidicity of the Earth. In reality, on account of their observations and migration from the North Pole southwards, the spheroidicity of the Earth could scarcely escape the notice of the Aryans, resident in India. The Aryan people had an idea of the spherical form of the Earth and its 'supportless' character in the space. This fact has been supported by the following extract :

> स वा एष न कदाचनास्तमेति नोदेति तं यदस्तमेतीति
> मन्यन्तेह्न एव तदन्तमित्वाथात्मानं विपर्यस्ते रात्रिमेवा-
> वस्तात् कुरुतेहः परस्तादथ यदेनं प्रासरुदेतीति मयते
> रात्रेरेव तदन्तमित्वाथात्मानं विपर्यस्यते ऽ हरेवावस्तात्
> कुरुते रात्रि परस्तात् स वा एष न कदाचन निम्नोचति ।
>
> ऐतरेय ब्राह्मण १४/६

"That (Sun) never sets; nor rises. We feel that it sets (but in reality) at the end of the day it reverses itself. It creates night this side and day on the other. It is merely recognised that in the morning it rises and at the end of the night, it reverses itself. It creates day on this side and night on the other. In reality, the Sun never sets." (Quoted by *Dīxit*, 1975).

From this statement, it is evident that the Earth was supposed to be a sphere in form and supportless in the space. In the *Gopatha-Brāhmaṇa* (9-10) of the *Arthavaveda* there are several sentences with such an import of meaning.

It may be noted that there is a passing reference to intermediate or subordinate directions (*Avāntar Pārśava*) in *Adhyāya* I, *Brāhmaṇa* 1, *Anuwāka* 1, of the *Brihadāraṇyaka-Upanishad*.

It appears from the *Rgveda-Samhitā* that the spherical shape of the Earth and its supportless character were definitely known at that time :

चक्राणासः परीणहं पृथिव्या हिरण्येन मणिना शुम्भमानाः ।
न हिन्वानासस्तितिरुस्त इन्द्रं परिस्पशो अदधात् सूर्येण ।।
ऋग्वेद संहिता. १/३३/८

"Beautified with the golden ornaments, the *dutas* (of the circle) though, revolving round the the circumference of the Earth and speedily running (about it), have not been capable of being victorious over the Indra. (Then) the Sun (or light) had encircled (those *dutas*)." (*Ibid.*)

Had the Earth been flat, with the rise of the Sun, its rays would spread out over the whole earth, atleast half of its dimensions, simultaneously. It has been referred at several places that this did not occur but they fell by slow degrees. The following extract may be cited in support of this contention :

आप्रा रजांसि दिव्यानि पार्थिवा श्लोकं देवः कृणुते स्वाय धर्मणे ।
प्रबाहू अस्त्राक् सविता सवीमनि निवेशयन् प्रसुवन्नक्तुभिर्जगत् ।।
ऋग्वेदसंहिता. ४/ ३/३

"Resplendent (*Savitā*) has filled with glow the region of the space, the sky and the Earth...... . With its lustre, setting the world asleep and awakening it, the *Savitā* is outspreading its arms."

From this it is apparent that as the Sun traverses through its journey in the sky, some part of the world experiences night and in the other there is day or light falls there.

This bears out the spherical form of the Earth.

The aforesaid inference also gets support from the prevalent belief in '*Devayāṇa* (*Uttarāyaṇa* देवलोकमार्ग or अर्पिरादिमार्ग) and *Pitriyāṇa* (*Dakshiṇāyaṇa* : पितृलोकमार्ग or धूमाद्रिमार्ग). There is a brief reference to this in the 2nd *Anuwāka* of 2nd *Brāhmaṇa* of *Adhyāya* VI of the *Brihadāraṇāyaka-Upanishad* :

"Do you know the access to the path leading to the *Devas* and to the path leading to the Fathers, *i.e.*, by what deeds men gain access to the path leading to the *Devas* or that leading to the Fathers ? For we have heard even the saying of a *Riṣī* : "I heard of two paths for men one leading to the Fathers, the other leading to the *Devas*. On those paths all that lives moves on, whatever there is between father (sky) and mother (Earth) : (*Maxmuller* 1900). Another allusion to this is found in the same *Adhyāya* and *Brāhmaṇa* in this *Upanishad* in the *Anuwākas* 13-16 :

13. "......He (Man) lives so long as he lives, and then when he dies.
14. "They take him to the fire (the funeral pile), and then the altar-fire is indeed fire, the fuel fuel, the smoke smoke, the light light, the coals coals, the sparks sparks. In that very altar-fire the *Devas* offer man, and from that oblation man rises, brilliant in colour.
15. Those who thus know this (even *Grihasthas*) and those who in the forest worship faith and the True (*Brāhmaṇa Hiraṇya-garbha*), go to light (archis), from light to day, from day to the increasing half to the six months when the Sun goes to the north, from those six months to the world of the *Devas* (*Devaloka*) from the world of the *Devas* to the Sun, from the Sun to the place of lightning. When they have thus reached the place of lightning a spirit comes near them and leads them to the world of the (conditioned) *Brāhmaṇa*. In these worlds of *Brāhmaṇa* they dwell exalted for ages. There is no returning for them.
16. But they who conquer the worlds (future states) by means of sacrifice, charity and austerity, go to smoke, from smoke to night, from night to the decreasing half of the Moon, from decreasing half of the Moon to the *six* months when the Sun goes to the south, from these months to the world of fathers, from the world of the fathers to the Moon. Having reached the Moon, they become food, and then the *Devas* feed on them there, as sacrificers feed on *Soma*, as it increases and decreases. But when this (the result of their good works on Earth) ceases, they return again to that ether, from ether to the air, from the

> air to rain, from rain to the Earth, they become food, they are offered again in the altar-fire, which is man, and thence are born in the fire of women. Thus they rise up towards the worlds and go the same round as before". (*Maxmuller* II, 1900). This extract incorporates several points. We are little concerned with all of them. We have to lay stress here on the reference to the '*Śukla-Paksha*' and '*Krasṇa-Paksha*' of *six* months each. This position occurs near the North Pole.[1] By observation and consideration of many planets in the space and the movements of the Sun, it is natural to arrive at the conception of the spherical form of the Earth and its supportlessness in the space. When the Aryans inhabited the region close to the North Pole, on account of their observation of the movement of the Sun and having experienced the phenomena there, it is no wonder that the above-mentioned description repeatedly occurs in the *Smritis* and *Srutis* of the Aryans. References to this occur also in the *Upanishads* from place to place. In *Khaṇda* 14, *Prapāthaka* IV and *Khaṇda* 10, *Prapāthaka* V of the *Chāndogya-Upanishad*, there are several allusions to '*Devayāṇa*' and '*Pitrayāṇa*' of the above description. They are briefly stated and one or two statements vary a little. Having described the version of the *Brihadāraṇyaka-Upanishad* at length there seems to be no further need for these citations concerning the surmise about the form of the Earth. The principal facts are identical. In conclusion, it may be said that the *Riṣīs* of the yore, who wrote the *Upanishads*, were conversant with the concept of the spheroidicity of the Earth and its supportless nature in the space.

It is still more surprising to note that they were knowing that Oceans occupied twice as much area as the land-surface on the Earth. In the 2nd *Anuwāka* of 3rd *Brahmaṇa* of III *Adhyāya* of the *Brihadāraṇyaka-Upanishad* it is said : "The ocean surrounds this earth on every side, twice as large" (तासमन्त पृथ्वीद्विस्तावत् समुद्र : पर्येति). According to the recent estimate, the land and ocean bear ratio of 21 : 79 or the ocean-surface covers more than three times as much area as the land-surface. The recent estimate is based a on elaborate and extensive explorations and surveys conducted by means of accurate and precise instruments. The Aryans had little of the modern means or instruments; nor could they circumnavigate the oceans as frequently as it is possible today. How they could arrive at the stated estimate is indeed very difficult to judge and find out. Having said about the Earth, as deduced from the study of the *Upanishad*, we may, now, proceed to examine the known geography of India in them.

Concerning the geography of our own country, the first point that occurs to our mind is the territorial extent. Unfortunately, there is no mention about it in the *Upanishads* anywhere. *Riṣis*, probably, did not find any occasion to make a reference to it. The *Brihadāraṇyaka-Upanishad* appears to have been composed a few centuries earlier than Kautilya's "Arthaśāstra". In the "Arthaśāstra" of Kautilya, the following description occurs :

देशः पृथिवी ।। १७ ।। तस्यां हिमवत्समुद्रान्तरमुदीचीनं योजन
सहस्त्रपरिमाणं तिर्यक् चक्रवर्तिक्षेत्रम् ।। १८ ।।

(Kāngle : 9.1.17-18)

"(Place means Earth. In that the region of the sovereign ruler extends northward between Himavat and the sea, one thousand yojanas in extent across)". Some of these facts are found in the *Upanishads* also. In the *Brihadāraṇyaka-Upanishad*, the Himālayas have been called the "White Mountains" and it is said that the rivers, having their sources in them, flow eastwards and westwards. (*Maxmuller*, I, 1900). There is no explicit reference to the seas in the East and West. It may be said to be implicit in the above-cited reference relating to the East and West-flowing rivers. However, in *Prapāthaka* VI. *Khaṇda* 10, *Anuwāka* 1 of the *Chāndogya-Upanishad* we come accross the following :

"इमा सोम्य नद्यः पुस्तात् प्राच्यः स्पदन्ते पश्चात् प्रतीच्यस्ताः
समुद्रात् समुद्रमेवापयन्ति" ।

"O Somya, these rivers run eastwards towards the east, westwards towards the west. They go from sea to sea." (*Maxmuller*, II, 1900). We have to imagine the known existence of the seas from the allusion to the directions of river flows. But the reference to the seas is more explicit in the *Brihadāraṇyaka-Upanishad* :

"तस्य पूर्वे समुद्रे योनी रात्रीरेनं पश्चात् महिमान्
वजायस तस्यापरे समुद्रे योनि :——" (अध्याय १, ब्राह्मण १, अनुवाकर)

"Its place is in the Eastern sea. The Night arose after the horse as the (silver) vessel, called *Mahimān*, which (at the sacrifice) is placed behind the horse. Its place is in the other (Western) sea." (*Ibid.*) Here, there is a direct reference to the Eastern sea, but the Western sea is called "the other sea",[2] as though the readers had been knowing the latter and, therefore, no specific mention seemed to be necessary. The various parts of the country, the rivers of the Deccan and other geographical features are alluded to at some places. These references to various portions of the country are as follows :

(a) (Kurudeśa) (*Ch.*, I, 10, 1; *Br.*, III, 1, 1; *Br.*, III, 9, 19).
(b) (Naimiṣāraṇya) (*Ch.*, I, 2, 13).
(c) (Pānchāl) (*Ch.*, V, 3, 1; *Br.*, III, 1, 1; *Br.*, III, 9, 19; *Br.*, VI, 2, 1).
(d) (Kāśī) (*Br.*, II, 1. 1).
(e) (Videha) (*Br.*, III, 1, 1; *Br.*, IV, 1, 1).
(f) (Gāndhāradeśa) (*Ch.*, VI, 14, 1-3).
(g) (Madradeśa) (*Br.*, III, 1, 1).
(h) (Kośala) (*Pr.* I, 1; *Pr.* IV, 1).
(i) (Vidārbha) (*Pr.* I, 1; II, 1).

Out of all the rivers, the name of the Sindhu' (Indus) only occurs. It is referred to as follows :

यथा महासुहय सैन्धवः पड्वीश शंकून संवृहेत.
(बृहदारण्यंकोपनिषद्, ग्रध्याय ६, ब्राह्मण १, अनुवाक ११)

It may be inferred that in the riverine tracts of the Indus large-sized horses were found. Similarly, the reference to Gāndhāra may be cited as below :

"As one might lead a person with his eyes covered away from the Gāndhāras, and leave him then in a place where there are no human beings; and as that person would turn towards the east, or the north, or the west and south' I have been brought here with my eyes covered, I have been left here with my eyes covered.

And as thereupon one might loosen his bondage and say to him, 'Go in that direction, it is Gāndhāra'; and as thereupon, having been informed and being able to judge for himself, he would go by asking his way from village to village arrive at last at Gāndhāra" (*Ch.*, VI, 14, 1).

(*Maxmuller*, II, 1900)

Seasons are prominently mentioned in the *Chāndogya-Upanishad.* The reference to this occurs in *Adhyāya* II, *Prapāthaka* 1, *Khaṇḍa* 5, as below :

लोकेषु पञ्चविधं सामोपासीत वसंतो हिंकारो ग्रीष्म :
प्रस्तावो वर्षा उद्गीथ : शरत्प्रतिहारो हेमन्तो निधनम् ।। १ ।।

"Let a man meditate on the fivefold *Sāman* as the seasons. The *hinkāra* is spring, the prastāva summer (harvest of *yava*, etc.), the *udgītha* the rainy season, the *pratihāra* autumn, the *nidhana* winter".

An identical reference recurs in the same *Adhyāya* and *Prapāthak*, *Khaṇda* 16 of this *Upanishad*. It is apparent that instead of six seasons, we come across only *five* seasons; "*Śiśira* (the close of the cold season) is not mentioned. It appears to have been included in '*Hemanta*'. The five seasons are also mentioned in other Vedic works. To this, *Dīxi*t draws our pointed attention for instance :

पंचशारदीयेन यजेत ।।— —पंचवा ऋतव: संवत्सर: ।।
तैत्तिरीय ब्राह्मण, २.७.३०

Since five seasons were reckoned, '*Hemanta*' and '*Śiśira*' appear to have been considered as one season. The following sentence is significant in this respect :

द्वादशमासर: पंचतबो हेमन्त शिशिरयो : समासेन ।
एतेरेय ब्राह्मण, १.१,

"While reckoning five seasons, *Hemanta* and *Śiśira* should be taken together as one season." Similar explanation in respect of five seasons occurs in the *Taittarīya-Samhitā*, *Taittarīya Brāhmaṇa* and *Śatapatha Brahmāna* (*Dīxit*, 1975).

Hence, it is no matter of surprise that only five seasons are mentioned in the '*Chāndogya-Upanishad*' and '*Śiśira*' has been merged into '*Hemanta*'. This had been done because the tract where (the modern Punjāb and the Northern Gangā Region) the *Upanishads* were composed, from '*Hemanta*' onwards to the close of the year, *i.e.*, the spring, it is so cold that in practice, it is difficult to differentiate between the two. That is the reason why '*Śiśira*' has been marged into '*Hemanta*'.

Vasanta (Spring) was recognised to be the commencement of the year and thus this system of reckoning time seems to be prevalent from the very beginning of the Vedic period. Dīxit states :

"Where in the Vedas six seasons are mentioned, the enumeration begins with '*Vasanta*' (spring). Apart from this, there are several independent references where '*Vasanta*' (Spring) has been counted among various seasons as the principal seasons :

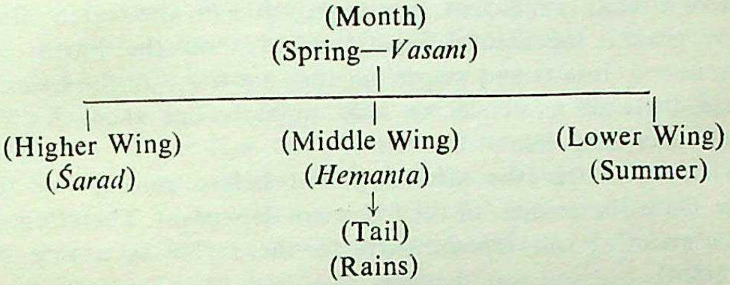
मुखं वा एतदृतूनां । यद्वसंत्त: ।।

"Spring is one which is the principal among seasons". (*Taittirīya Brāhmaṇa*, 1. 1. 2. 6-7).

तस्य नै (संवंत्सरस्य) वसन्त: शिर: । ग्रीष्मो दक्षिण: पक्ष: ।
वर्षा पुच्छं । शरदुत्तर: प्रक्ष: । हेमन्तो मध्यम् ।।

(*Taittarīya Brāhmaṇa*, 3.10.4.1)

Similar sentences recur elsewhere also. Here '*Hemanta*' has been called the middle of the '*Samvatsara*' (Year) and Rainy season as its tail end. If Spring be regarded as the commencement of the year, the seasons can be charted as below :



(*Dīxit*, 1975)

The changes wrought in the outward face of the Nature with the march of seasons are not mentioned. The references to the Sun are a legion; but there is no mention of the rise and fall of temperature. But, nay, there are a few references to the rainy season. In *Adhyāya* VI, *Khaṇda* 2, *Anuwāka* 4, of the *Chāndogya-Upanishad* it is said :

यत्र क्वच वर्षति तदेव भूमिष्ठमन्नं भवति

"(Wheresoever it rains, crops are produced)." It can be inferred from this that all tracts did not have sufficient rains. This point is repeated in *Adhyāya* II, *Khaṇda* 3, of the same *Upanishad* where it is stated :

"Let a man meditate on fivefold *Sāman* as rain. The hinkāra is wing (that blows the rain); the *prastāva* is, 'the cloud is come'; the *udgītha* is, 'it rains'; the *pratihāra*, 'it flashes, it thunders'."

"The *nidhan* is, 'it stops'. There is rain for him, and he brings rain for others who thus knowing meditate on the fivefold *Sāman* as rain." (*Maxmuller*, I, 1900).

It appears that in the western part, sufficient rains did not fall. This tract is apparently the modern Punjāb; possibly it may be the northern part of the Gangā Basin where rainfall is scanty. This becomes clear from the description of clouds which follows that of the rains.

"Let a man meditate on the fivefold *Sāman* in all waters. When the clouds gather, that is *hinkāra*; when it rains, that is *prastāva*, that which flows in the east, that is the *udgītha*; that which flows in the west, that is the *pratihāra*; the sea is the *nidhan*.

"He does not die in water, nay, he is rich in water who knowing thus meditates on the fivefold *Sāman* as all waters." (*Idid*)[3].

It is evident from this that the clouds give rains first to the east and then to the west, but it is said that clouds on both sides bring rain.

Such a tract can be well identified with the above-mentioned region. This tract extends from old Hastināpur-Indraprastha to modern Morādābād. This region gets rains from the westerlies in the winter season and also from the easterly current of wind (monsoon of the rainy season).

Where rainfall is sufficient, forests grow but in the region of insufficiant rain, grass is the natural vegetation-cover on the Earth. There are references to forests and woods but they are few. In the *Chāndogya-Upanishad*, there are references to wild animals but there is only one direct reference to forest :

"What he is after the afternoon and before sunset, that is the *upadrava*. On it the animals of the forest are dependent. Therefore, when they see a man they run (*upadravanti*) to the forest as a safe hiding place". (*Ibid*).

In *Adhyāya* VI, *Khaṇḍa* 9, *Prapāthaka* 3 of the aforesaid *Upanishad* mention has been made of tiger, lion, wolf, boar, worm, midge or gnat, mosquito and other biting species of insects. It seems that not unlike today the modern Punjāb and northern tracts of the Gangā Basin were covered with extensive grass or *Vraja* and animal-rearing, specially the rearing of cows, goats and sheep was predominantly important occupation in those olden days.[4] In *Adhyāya* I, *Brāhmaṇa* 4 of the *Brihadāraṇyaka-Upanishad*, mention has been made of cows, bullocks, he-goats and she-goats, sheep, donkeys, etc.

Among agricultural products, cereals are prominently mentioned. We have already narrated above that in *Adhyāya* VI, *Khaṇḍa* 2, *Prapāthaka* 4, of the *Chāndogya-Upanishad*, it is said that in the region of adequate rains food could be produced. In contrast to this, in *Adhyāya* VII, *Khaṇḍa* 10, *Prapāthaka* 1, it is stated : "......if there is not sufficient rain, the vital spirits fail from fear that there will be less food".

In *Adhyāya*, III, *Khaṇḍa* 14, *Prapāthaka* 3, there is a reference to rice, barley, mustared and canary seed (**श्यामाक तंदुल**) In *Adhyāya* V, *Khaṇḍa* 10, *Prapāthaka* 6, mention has been made of '*Vrihī*, sesamum, barley and urad (*Phaselus radiatus*). In *Adhyāya* VI, *Brāhmaṇa* 3 of the *Brihadāraṇyaka-Upanishad*, rice, barley, sesamum, kidney-beans (*tīlamāsā*), millets (*Prakangu*), panic-seed (*anupriyangava*), pulses (*khalava valla*), etc., are mentioned. From *Adhyāya* I, *Khaṇḍa* 10 of the *Chāndogya-Upanishad*, it appears that its composer lived in the tract where urad was grown in large quantities and its preparations were consumed at the time of breakfast or tiffin. Possibly, urad was roasted like gram. This reference indicates that both king and his subjects alike ate the preparations of urad. The inference about the region, in which the author of the *Upanishad* lived, gets support from this reference to urad. In the Punjāb and in northern part of the Gangā Basin, urad is grown, on account of scanty rains.

In the region of the *Upanishad*, mineral products were also found. In *Adhyāya* III, *Khaṇda* 17 of the *Chāndogya-Upanishad*, there is a reference to gold and silver coins known as *Niska*. To the east in Videh, coins called '*Pāda*' were made out of gold (*Br*., 3, 1, 1). In *Adhyāya* IV, *Khaṇda* 17 of the *Brihadāraṇyaka-Upanishad*, six minerals : *lavaṇa* (borax) silver, gold, tin, lead and iron (*loha*) are mentioned. The technique of mining, refining and manufacturing of these minerals and metals must have been known to the ancient Aryans.

References to the manufacture of raw materials into finished goods are negligible. Doubtless, textiles were manufactured. A variety of textiles are mentioned and we have already referred to some of these. It seems that the Aryans were conversant with the manufacture of many articles, as can be deduced from the mention of several crafts (*Vidyās*).

This beief foregoing discussion points to the conclusion that in the olden days, the Aryans not merely devoted themselves to the meditation of the Almightly but also paid adequate attention to the material well-being and welfare of their community. They had worldly desires and ambitions for which they had directed their energies to fulfil them.

NOTES

1. This description and that incorporated in the *s'lokas* 24-26 of VIII *Adhyāya* of the *Gītā* has a close resemblance. It appears that the Aryans must have been inhabitants close to the North Pole. The memory of this fact has been kept up alive by *Riṣīs*. We come across such a statement in *Smritis*. "We have heard from *Riṣīs*." On the basis of these references, Lokmānya Tilak has arrived at his conclusion of the "*Artic Home of the Vedas*".
2. F. Maxmuller (Vol. II, p. 24) has taken the liberty to translate *'apara'* as Western.
3. In *Adhyāya* II, *Khaṇda* 6 of the *Chāndogya-Upanishad* cows, he-goats and she-goats and horses are mentioned. In *Adhyāya* II, *Brāhmaṇa* 2, *Anuwāka* 6, woollen clothing is referred to. In *Adhyāya* IV, *Khaṇda* 2, there is also a reference to cows and mules. In this connection, *Mahāvraṣadeśa* is alluded to by the author (*Ibid.*) It appears that in that region there must have been large-sized bullocks.

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ABBREVIATIONS

1. *Ch.* : *Chāndogya-Upanishad* : 2. *Br.* : *Brihadāraṇyaka-Upanishad* and 3. *Pr.* : *Praśṇa-Upanishad.*

2

Geographical Data in the Jātaka Tales*

ABSTRACT

THE Jātaka Tales are quite an interesting source of information on realms or kingdoms in India, physical geography of the country, including some mountains, plateaus, hills, rivers, glimpses of weather and climate, crops, animal rearing, food-stuffs, mining, forestry and forest-based occupations, leather work, textiles, the manufacture of sugar, musical instruments, medicines, drugs, cosmetics, jewellery and ornaments, house-building, trade and commerce, miscellaneous occupations, means of communication and transport, human settlements and dwellings.

The legendary stories contained in the Jātakas relate the events of the previous lives of Gautam Buddha or Bodhisatta, the progenitor of the Buddhistic religion and philosophy and are very valuable to students of folklore (*Radhākrishnan*, 1930). The tales at places are completely unhistorical. Some historians, like Hemachandra Rāychaudhurī, have utilised the tales for reconstructing the ancient history of India (Rāyachaudharī, 1953). The Jātaka tales were widely known in the third century B.C. (*Cowell*, 1977 : Preface).

A systematic attempt has been made in this paper to bring together the geographical data which can be gleaned from the tales. The geographical data embodied in them may be classified for the sake of clarity and well-arranged study.

I. REALMS OR KINGDOMS IN INDIA

The *Jātakas* cite the place or places where the Buddha imparted his preachings to his followers and mention also the places where particular events of any story took place. They also mention the setting of stories in some contemporary kingdoms. *Foules* points out in this connection that seven stories of the *Jātakas* are set "in the kingdom of *Śivī* (*Śibī*) (*J.T.*, 241)[1]………six in the kingdom of *Kuru* (Kururattha)[2], five in the kingdom of *Gāndhāra*[3], three in the kingdom of *Kapila*… . Only one of the *Jātakas* is connected with the island of *Ceylon*, with the capital of the Yakkhas (*Tanbanpannadīpa Sirīvātthu Yakkanagaram*)" (*J.T.*, 99).

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* Appeared in the Quarterly Review of Historical Studies, VII-2, 1967-68. Reproduced with the kind permission of the Editor.

Besides the aforesaid kingdoms, mention of the following kingdoms and realms occurs in the *Jātaka* tales (Fig. 2.1).

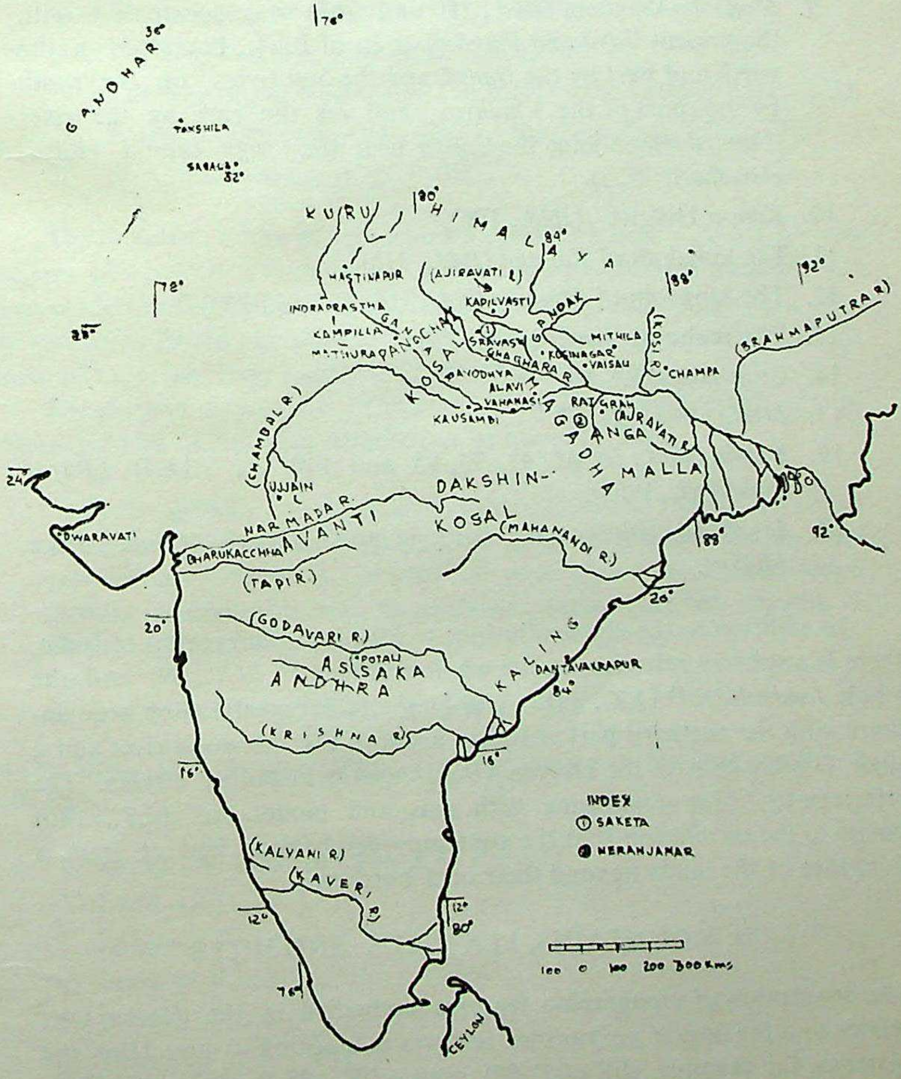
GANDHAR
TAXSHILA
SAGALA
KURU
HIMALAYA
HASTINAPUR
(AJIRAVATI R)
KAPILVASTI
INDRAPRASTHA
KAMPILLA
MATHURA
PANCHAL
GANGA
KOSAL
SRAVASTI
GHAGHARA R
GANDAK
MITHILA
KOSINAGAR
VAISALI
(KOSI R)
CHAMPA
(BRAHMAPUTRA R)
AYODHYA
ALAVI
VARANASI
KAUSAMBI
RAJGRAH
(AJRAVATI R)
ANGA
MAGADHA
MALLA
(CHAMBAL R)
UJJAIN
NARMADA R
AVANTI
DAKSHIN-KOSAL
(MAHANANDI R)
DWARAVATI
BHARUKACCHHA
(TAPI R)
(GODAVARI R)
POTALI
ASSAKA
ANDHRA
KALINGA
DANTAVAKRAPUR
(KRISHNA R)
(KALYANI R)
(KAVERI R)
CEYLON
INDEX
① SAKETA
② NERANJANAR
100 0 100 200 300 Kms
36°
76°
32°
72°
28°
80°
84°
88°
92°
24°
20°
16°
12°

FIG. 2.1 : *Jātaka Tales*

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1. The realm or kingdom of *Kāśī* (*J.T.*, 7, 25, 143, 246, 262, 271, and 274).
2. *Videha* (*Ibid.*, 9, 32) (*Rāyachaudharī*, 1953).
3. *Cedī* (*Ibid.*, 10, 27) (*Sircār*, 1960).[4]
4. Northwest Country of *Uttarpath* (*Ibid.*, 196).
5. North Country (*J.T.*, 58).
6. The *Āndhra* Country (*Ibid.*, 59).
7. The island of *Nāga-dwīpa* (*Ibid.*, 153).[5]
8. Himālaya Country (*Ibid.*, 136 and 139).
9. *Magadha* kingdom (*Ibid.*, 180 and 267) was coextensive with the present *Gayā* and *Patnā* districts of Bihār, bounded on the north and west by the *Gangā* and the *Son* rivers, on the south by the spurs of the *Vindhyas*, and on the east by the river *Champā* which joins the *Gangā* near the *Anga* capital (*Rāyachaudharī*, 1953).
10. *Kāmsa* District (*Ibid.*, 196).[6]
11. The kingdom of *Kalinga* (*Ibid.*, 215).
12. The kingdom of *Madda* (*Ibid.*, 216, 252 and 279).[7]
13. The realm of *Avantī* (*Ibid.*, 235).
14. *Uttar-pāncāla*.[8]
15. *Malla* (*Ibid.*, 275).[9]
16. *Kośala* (*Ibid.*, 30, 41, 45, 79, 83 and 149; J., 3-14-3) (*Rāyachaudharī*, 1953).
17. *Assaka* (*Asmaka*) on the bank of the *Godāvarī* (*Chullakalinga Jātaka*).

In addition to the above allusions to kingdoms and realms of India, there is a solitary reference to the whole continent[10] (*J.T.*, 59) and the whole *Jambudwīpa*[11] (*J.T.*, 35). The *Jātaka* tales reveal a close acquaintance with the northern part of India, north of the *Narmadā* river and a slight familiarity with the Deccan (*Dakshinpath*) including *Ceylon*. The reference to "four continents with seas and mountains" (*J.T.*, 180) points to the conclusion that the contemporary Indians had at least a faint idea of the lands beyond their own borders.

II. MOUNTAINS, PLATEAUS AND HILLS

The description of topographic features embodied in the *Jātaka* tales relates to a few minor geomorphic features in addition to mountains and plateaus, for example, cliff (*J.T.* 98), crag (*J.T.*, 99 & 254), hill (*J.T.*, 123) and tiny plateau of *Cittakūṭa* (*Chitrakūṭa*) (*J.T.*, 108). They also mention "a great plateau of bare rock in the *Himālayan* region (*J.T.*, 17), mountain pass (*J.T.*, 274), bottom of mountain (*J.T.*, 153) and mountain in general (*J.T.*, 128 and 139). The references to the *Himālayas* (*J.T.*, 45, 84, 85, 101 & 105) and the *Himālayan* tracts are numerous. Some of these are culled out here to throw light on them :

1. 'At the foot of *Himālaya*' (*J.T.*, 105, 131, 145, 148, 173, 175, 188, 204, 210, 222, 236, 237 & 247).
2. 'The region of *Himālaya*' (*J.T.*, 108).
3. 'The country of *Himālaya*' (*J.T.*, 144).
4. 'The Highlands of *Himālaya*' (*J.T.*, 90).
5. 'The *Himālayan* country on the bank of the Ganges' (*J.T.*, 181).
6. 'Wooded district on the slopes of the *Himālaya*' (*J.T.*, 191).
7. 'Northern *Himālayas*' (*J.T.*, 254).

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The reference to the Mount *Kailāsa* cannot be lost sight of by the reader (*J.T.*, 252). Among the *Himālayan* mountains, mention has been made of the *Maṇi* parvata, *Hingula* parvata, *Anjan* parvata, *Sanu* parvata and *Phalika* parvata. (J.V., 451 quoted by *Rāyachaudharī*, 1953). None of them has been satisfactorily identified as yet.

The graphic description of the *sub-Himālayan* zone, north of the plains of India (*J.T.*, 143), deserves to be quoted below :

> "a dense growth of *Kuśa* and other grassess, thicket of basil, reeds, and rest-harrow, clumps of thick thorns and caves, thickets of mixed growth, jungles of reed and cane, dense forest growth, impenetrable even to a snake, tracts, eighteen regions in all, one after another".

III. OTHER MINOR FEATURES

In the *Jātaka* tales, a few glimpses of minor water features occur as follows :

1. Ponds and tanks of Ceylon (*J.T.*, 101).
2. Ponds (*J.T.*, 113)
3. Lakes (*J.T.*, 104, 113, and 309).
4. Pools (*J.T.*, 45).
5. Mire (*J.T.*, 240).
6. Miry way (*J.T.*, 275).
7. Morass (*J.T.*, 256).
8. Mud (*Ibid.*).

There is a single reference to a natural lake (*J.T.*, 225), which suggests indirectly that there were artificial lakes also. There is a solitary reference to "a great lake in *Himālaya*" (*J.T.*, 128) and the specific mention of the lake *Chaddanta* in the *Himālayas* (*J.T.*, 250), 50 leagues long and 50 broad. There are at least two references to lotus tanks (*J.T.*, 56).

The *Jātaka* tales not only refer to landfeatures but also to oceans (*J.T.*, 130 and 141), seas (*J.T.*, 129, 141 and 164) and certain marine features. The mention of the *Western Ocean* (*J.T.*, 140) implicitly points to the existence of and familiarity with the *Eastern Ocean*. We also learn about the variations in the state of the sea, for example, 'moaning of the weary sea' (*J.T.*, 155) and 'stormy main' (*J.T.*, 155). Mention also may be made of 'island in the midst of the sea' (*J.T.*, 224), thousand islets (*J.T.*, 113) and landing places (*J.T.*, 113).

IV. RIVERS

The *Jātaka* tales contain not many references to the rivers of India. The mighty *Ganges* occurs very frequently in some of these stories (*J.T.*, 97, 132, 173, 174, 186, 230, 266 and 272) together with a few vivid and picturesque descriptions of its characteristic features as follows :

1. 'a bend of the river' (*J.T.*, 97),
2. curve of the river *Ganges*,
3. 'a rock by the *Ganges* bank' (*J.T* , 134, 137 and 168),
4. 'a flood in the *Ganges*' (*J.T*,, 130 and 272),
5. 'winter floods' (*J.T.*, 134),
6. 'the *Ganges* swept......headlong to the perils of the sea' (*J.T.*, 272),

The names of four other rivers, namely the *Narmadā* (*J.T.*, 129), the *Niranjana*[12] (*J.T.*, 236 and 239), the *Kalyāṇī*[13] (*J.T.*, 100) and the *Acicavati* (*Cowell*, Vol. I, sālipattākajātaka) round off the list. 'A stream which was not really deep' (*J.T.*, 301) indicates acquaintance with deep and shallow streams also.

V. WEATHER AND CLIMATE

The scattered notices of weather and climatic conditions serve to reveal the regional differentiations and seasonal and periodic variations.

1. 'At the foot of a certain mountain, it was experienced that...... whensoever the wind doth blow, 'tis cold. For cold is caused by wind' (*J.T.*, 11).

2. In summer, in a certain forest haunt the heat was found to be intense (*J.T.*, 31).
3. 'Severe cold' and 'wintry blast' of the *Himālayan* region suggests the influence of high elevation (*J.T.*, 140).
4. The variety of clouds, fluctuations in rainfall amounts and their concomitant effects on crops, human and animal life, seasonal character of rainfall and occasional departure from it are cited below :

   (a) 'a dark cloud' (*J.T* , 163).
   (b) 'a storm-cloud pouring rain' (*J.T.*, 64).
   (c) 'thunder-like Alambara cloud' (*J.T.*, 130).
   (d) 'rainy season' (*J.T.*, 87 and 251).
   (e) 'the rains were over' (*J.T.*, 230), after three months in the vicinity of *Banaras*.
   (f) 'no rain' (*J.T.*, 48 and 51).
   (g) 'heavy downpour' (*J.T.*, 52).
   (h) 'unseasonable storm cloud' (*J.T.*, 187) in the *Himālayan* region.
   (i) 'the destruction of crops by a heavy downpour (*J.T.*, 52) and innundation caused by a heavy rainfall (*J.T.*, 187).

The cause of famine alluded to in one of the tales (*J.T.*, 103) has not been mentioned. Obviously, heavy rainfall or drought must have been one of the causes of famines. There is a graphic description of a drought in *Kośala*, narrating the withering of crops, and drying up of ponds, tanks and lakes (*J.T.*, 187).

We learn that the month of *Srāvaṇa* occurred in the Rainy season and the month of *Chaitra* in the Summer season (*Foules*, 1965).

VI. FLORA AND FAUNA

A close and critical study of the *Jātaka* tales carries an impression that the vegetation and forests covered far more extensive tracts than those in the later periods in Indian History. Forests, even in the kingdom of *Kāśī* or *Banāras*, were infested with tigers (*J.T.*, 59, 94 and 183).[14] It is not surprising that the *Himālayan* and *sub-Himālayan* zones had been under a cover of dense and luxuriant forests in the times of the *Jātaka* tales, as can be learnt from the scattered references in them (*J.T.*, 143). One of the graphic descriptions of these forests has been already quoted in the *supra*. While referring to a journey of a Brāhmaṇa youth from *Taxilā* to *Banāras*, we come across the reference to the forest-clad land half-way, indicating that the western portion of the present *Uttar-Pradesh* had a forest-cover which was a home of elephants. For the construction of a large flotilla by Alexander, the Great, on his return journey after his Indian expedition, the forests "at the base of hills (in the *Punjāb*) afforded ample facilities" (*Smith*, 1914). It can be safely and well surmised that in the 4th Century B.C. the northern parts of the *Punjāb* bore a heavy cover of forests. *Alāvī* (Sanskrit *Atāvī* of *Atāvikā*) or *Alābhiyā*, corresponding to the modern *Ghāzīpur* district (*Rāyachaudharī*, 1953), stood close to a large forest "that suggested the particular nomenclature". All these references are a telling evidence of far more extensive forest-cover in Northern India than what exists today due to heavy deforestation. Under these circumstances, arable lands must have been confined to large or small patches in forest clearings and in large or small blocks of territories on whose immediate borders forests still existed. In short, the *Jātaka* tales are helpful in reconstructing the former areal distribution and extent of forests in Northern India.

The occurrence of the names of numerous plants, trees, bushes and the like can never fail to impress the reader of the *Jātaka* tales about the rich and varied genera and species of vegetation and luxuriant growth of forests in India in those days. An attempt may, now, be made at a systematic classification of vegetation, indicating their areal extent wherever possible.

The types of vegetation noticed in the *Jātaka* tales fall under the following categories :

(a) *Forests*

Forests existed in the vicinity of *Banāras* (*J.T.*, 18, 222, 224 and 283), in the *Himālayan* region (*J.T.*, 84, 174, and 254), in *Kośala* (*J.T.*, 41), jungles around *Ayodhyā* (*J.T.*, 199), forest on the bank of the river *Ganges* (*J.T.*, 109), and the forest of *Kālamattiā* (*J.T.*, 198 and 202). The references to *Sāl* (*Shorea Robusta*) (*J.T.*, 268, and 270) may lead to the surmise that this species grew in the vicinity of *Rājgarh*. The *Sāl* tree is described to have green leaves and straight stems (*J.T.*, 270).

(b) *Woods*

Notices of woods occur in the vicinity of *Banāras* (*J.T.*, 200), *Himālayas* (*J.T.*, 210), and *Avantī* (*J.T.*, 224 and 236). The other references to woods can hardly give any clue as to their areal distribution (*J.T.*, 137 and 140), except that they could be found on "rough or level ground". (*J.T.*, 274).

(c) *Herbaceous Vegetation*

Besides the general references to grass (*J.T.*, 8 and 124), there are a few specific notices of its two species as follows :

(i) *Kuśa* grass (*Saccharum Arundinaceum*) in the tract adjacent to the *Ganges* near *Banāras* (*J.T.*, 38, 139 and 161).

(ii) *Munja* grass (*Saccharum exallatum*) (*J.T.*, 101).

(d) *Thorns, Shrubs, Bushes, etc.*

The notices of thorn-brakes (*J.T.*, 18), bushes (*J.T.*, 203), tiny trees and shrubs (*J.T.*, 48) hardly serve to indicate their patterns of distribution.

Besides all these types of vegetation mentioned above, there are a few references to impassable stretches of weeds (*J.T.*, 103), growing in the riverain tract of the *Ganges*, reeds (*J.T.*, 13 and 239) and creepers (*J.T.*, 217).

The forest vegetation provided wild fruits (*J.T.*, and 97 252) for eating, wild flowers (*J.T.*, 97) for offering to deities, timber (*J.T.*, 25) for building purposes, fire-wood (*J.T.*, 137 and 140) and medicinal herbs (*J.T.*, 210).

Apart from the allusions to the vegetation types in the *Jātaka* tales, numerous species of trees and plants are mentioned, as given below :

1. Banyan (*Ficus Bengalensis*) : on the slopes of the *Himālayas* (*J.T.*, 19) and in the *Nāga* island.
2. *Varaṇa* Tree (*Dipteropus Indicus ?*) : on the banks of a pool (*J.T.*, 21).
3. Palm tree (*Phoenix Linn*) : the reference to a grove of palms near the Western Ocean is indicative of the tract in which the species grew, *that is*, close to the seaside (*J.T.*, 140). Their tallness is indicated for the measurement of depths (*J.T.*, 210). Another reference to this species (*J.T.*, 35) hardly serves to indicate its habitat.
4. Silk Cotton tree (*Bombax Malabaricum*) : is mentioned as growing on river bank (*J.T.*, 43).
5. Bamboo (*Bambusae*) : in the vicinity of the Ganges river.
6. Acacia (*Acacia Arabica*) : all the notices of this species do not throw light on its habitat or geographical distribution (*J.T.*, 81, 120 and 292).
7. *Vilva* tree (*Aegle Marmelos, Con*) : this species is mentioned in association with palms (*J.T.*, 140).
8. *Kadam* tree (*Anthocepalus*) (*J.T.*, 224).
9. Coral tree (*Erythrina Linn*) : perhaps in *Malla* Kingdom (*J.T.*, 227).
10. Sandal wood tree (*Santalum album*) : perhaps in *Malla* Kingdom (*J.T.*, 292).
11. *Kaṇikāra* tree (*Boehmeria Nivea*) :[15] or *China grass*, blooms in winter (*J.T.*, 292).

Other species of trees such as *Nimb* (*J.T.*, 214) (*Azadirchata Indica*), Judas tree (unidentified) (*J.T.*, 214), and *Tāl* tree (*Borrassus Flabellifer*) (*J.T.*, 221) are also mentioned.

The species of plants cover Cassia (*Cassia Linn*) (*J.T.*, 157), Castor (*Ricinus Communis*) (*J.T.*, 123), Myra-bolam (*Tomentia bilerica*) (*J.T.*, 247), *Panaka* or *Sevala* (*Blyxa Octandra*) (*J.T.*, 250), Eraka (*Areca Catechu*) (*J.T.*, 202) and Pepper shrub (*Piper nigrum*) (*J.T*, 247).

We must take note of the occurrence of poisonous trees in forests whose particulars are not mentioned anywhere in the tales (*J.T.*, 13).

The *Jātaka* tales incorporate notices of fruit trees such as mango (*J.T.*, 93 and 211), fig tree (*J.T.*, 98 and 106), bread-fruit (*J.T.*, 106 and 107) and rose-apple (*J.T.*, 107 and 133), Mango fruits are described as luscious, sweet, fragrant, delicate in taste and of fine colour (*J.T.*, 211).

There are a few references to 'wild fruits and roots' on which a certain section of people subsisted (*J.T.*, 84 and 144). Groves, gardens and parks are mentioned in several stories of the *Jātakas* (*J.T.*, 112, 124, 161, 212, 213, 235, 237, 244, 260, 268, 270, 282 and 306) suggesting that there had been a widespread and popular practice of providing these for recreation, pleasure and pastime, specially in urban centres. The specific mention of *timira* grove, close to the seaside, has to be noted besides the generic references to gardens, parks and groves. It appears that cemetries were also provided with groves, (*J.T.*, 67).

It cannot escape the attention of the reader of the tales that there are several notices of flowers in general (*J.T.*, 101, 113 175 and 195) and wild flowers in particular (*J.T.*, 47). The varieties of flowers may be classified as follows :

1. *Lotus* : growing in tanks, ponds and pools. Five varieties of lotuses are mentioned without their enumeration (*J.T.*, 51). However, lotuses of three colours are mentioned in one of the tales (*J.T.*, 251), namely, blue, white and red.
2. *Lilies* : the reference to water lilies (*J.T.*, 306), implies that there were also other varieties of lilies. Of these, 'esculent' lilies deserve special mention. (*J.T.*, 251). Lilies of two different colours are red and white ones, (*J.T.*, 251, 255 and
3. 257). '*Champak* flowers' (*Plumerica acntifolia*) (*J.T.*, 377).

To this discussion on plant life may be added *Usira* root (*J.T.*, 251) (*Vetiveria zizanoides*) to round it off. It appears that in ancient India 'grass fields' and 'pasture lands' were mentioned, especially in the peri-urban zones, (*J.T.*, 221 and 298).

India of the times of the *Jātaka* tales had, not unlike the flora, a rich and varied fauna of wild and domesticated animals. Wild animals

(*J.T.*, 253) of different habitats may be classified into the following categories :

1. *Lions* : of the several references in the tales only a few throw light on their habitat in the *Himālayan* country (*J.T.*, 74), mountainous country (*J.T.*, 275) and hill caves.
2. *Tigers* : were found in the forests of *Kāśī* (*J.T* , 59, 94, 141 and 184), mostly in its western portion.
3. *Panthers* : are said to prey on goats (*J.T* , 54) and from one reference in the tales, it may be inferred that there were Panthers in *Jetavana* (*J.T* , 179).
4. *Wolves* : have been mentioned to live in fastnesses of thickets (*J.T.*, 54).
5. *Jackals* : the proverbial craftiness and beguiling character of jackals are impressed by these tales (*J.T.*, 69, 74, 119, 132, 137 and 164) and they seem to live close to river banks (*J.T.*, 165) and have been referred to as "beasts of prey" (*J.T.*, 292) and "corps eaters" (*J.T.*, 134).
6. *Wild Boars* : seem to have lived in deserted village sites (*J.T.*, 141) and one of their natural habitats was near the *Western Ocean* (*J.T.*, 91). Domesticated pigs were fattened for eating their flesh (*J.T.*, 17).
7. *Elephants* : only one reference gives the *Himālayan* region as their habitat (*J.T.*, 74 and 75). Their number was quite large as can be gleaned from the figures[16] mentioned in some of the tales (*J.T.*, 250 and 152). Elephants were employed for riding (*J.T.*, 61), for transport (*J.T.*, 238) and war operations (*J.T.*, 60). Some elephants have been recognised as grateful (*J.T.*, 81), others rogue and cruel (*J.T.*, 152). It seems that elephants had definite tracks over which they roamed about in their forest habitats. (*J.T.*, 91). Their trumpeting could resound the nearby area (*J.T.*, 293).

Apart from the carnivorous wild beasts, there were also herbivorous animals such as deer and antelopes (*J.T.*, 104). Deer were found in the western part of the kingdom of *Banāras* (*J.T.*, 156), near the *Western Sea* (*J.T.*, 141) and close to the *Niranjana* (Avantī – *J.T.*, 239). Hares dwelt in woods (*J.T.*, 137). There is a solitary reference to red deer (*J.T.*, 13). Elk is mentioned in connection with the animals found near the *Western Ocean* (*J.T.*, 141).

The most commonly mentioned reptile was snake which has been referred to in several tales. Snakes usually lived in ant-hills (*J.T.*, 124 and 177). The reference to venomous serpents indirectly suggests that there were non-poisonous snakes also, (*J.T.*, 177). Snakes of black or jet black colour are frequently mentioned (*J T.*, 205 and 220). One of the tales gives clues as to how to distinguish between male and female snakes. "The tail of the male snake is thick, that of the female's is thin; the male snake's head is thick, the female's is long; the eye of the male is rounded, that of the female is cut short." Like snakes, mongoose also lived in ant-heap and has been called 'egg-born' enemy of snakes (*J.T.*, 85 and 86).

The discriminating intelligence of rats has been indicated in the following couplet :

> "They cared not much the husk to touch. But grain by grain the rice they ate" (*J.T.*, 147).

The *Himālayan* mountains were a habitat of wild animals such as elephants, rhinoceros, buffaloes, frogs, peacocks and peahens (*Cowell*, V quoted by *Rāyachaudharī*, 1953). They were also a home of horses of diverse breeds, reptiles, pythons, watersnakes, lions, etc. (*Ibid.*, II).

There are also sundry references to small and tiny creatures like lizards, living in burrows and chamelons (*J.T.*, 72), insects (*J.T.*, 24), mosquitos (*J.T.*, 26 and 224), flies (*J.T.*, 166), blue flies (*J.T.*, 153), maggots (*J.T.*, 153), gnats (*J.T.*, 224), spiders (*J.T.*, 257), and buzzing bees (*J.T.*, 257), including ants. It has been observed that ants 'came out after thunderstorm and lizards darted hither thither catching them and eating them' (*J.T.*, 73).

In addition to land animals, there are references to aquatiic animals also in the tales. There is a single reference to rhinoceros in the region of the *Western Ocean* (*J.T.*, 141)[17] which is not found today in that part. Similarly, there is a solitary allusion to water-ogre (*J.T.*, 12). Crabs were both fresh-water as well as salt-water creatures, living in sea, ponds (*J.T.*, 21), in the *Ganges*, the *Narmadā*, and other rivers (*J.T.*, 129) and in the lakes of the *Himālayas* (*J.T.*, 128). We learn of a snake living in a tank (*J.T.*, 160) and a sea-monster near *Bhārukaccha* (*J.T.*, 154). Fishes were found in ponds (*J.T.*, 20), in rivers (*J.T.*, 66) and in the sea near *Bhārukachha* (Broach). They were caught by means of nets, basket-traps, etc.. in river while they floated down-stream (*J.T.*, 66). Otter is mentioned in the *Jātaka* tales (*J.T.*, 137) without relevant details about it There are also two allusions to the savage aquatic animal, *namely*, the crocodile. living in the *Ganges* and in a river near *Banāras* (*J.T.*, 106 and 188). Tortoises were found in ponds in the region of the *Himālayas* (*J.T.*. 108) and on islets (*J.T.*, 244). About frogs, no specific particulars are available (*J.T.*, 47, 53, 115, 219 and 295).

Besides land and aquatic animals, multifarious varieties of birds occur in the *Jātaka* tales. Trees are said to be dwelling places of countless birds (*J.T.*, 188). Birds were found in large flocks in the *Himālayan* region in the hot season (*J.T.*, 247). The birds of prey include hawks (*J.T.*, 35, 110, 146 and 224), osprey (*J.T.*, 110, 224 and 225) on the banks of the *Niranjana*; and *garud* (*J.T.*, 153 and 154). Water-birds were of numerous kinds. There are references to swan (*J.T.*, 139), royal goose (*J.T.*, 181), golden goose (*J.T.*, 70),[18] goose (*J.T.*, 182), water-fowl (*J.T.*, 255), heron (*J.T.*, 149) and marsh crow (*J.T.*, 103). Other birds mentioned are peacock (*J.T.*, 17, 103, 138, 247 and 293), mallard (*J.T.*, 17), quail (*J.T.*, 18, 152 and 153), partridge (*J.T.* 19, 124, 126 and 247), pigeon (*J.T.*, 23, 24, 47, 53, 76, 103 and 153), parrot (*J.T.*, 43, 101, 181 and 246), crone (*J.T.*, 68), insectivorous woodpecker (*J.T.*, 104), cock (*J.T.*, 130, 159, 225, 247, 257 and 304), owl (*J.T.*, 130 and 261), *maynah* (*J.T.*, 226), cuckoo (*J.T.*, 293) and *singila* bird (*J.T.*, 139) (*unindentified*).

Besides wild animals, the following domesticated animals occur in the *Jātaka* tales :

1. *Goats* : were wild as well as domesticated. Wild goats were found in 'a wooded district on the slopes of the *Himālayas*' (*J.T.*, 191). Goats were regarded as stupid creatures (*J.T.*, 161). They seem to have been used for sacrificial feasts (*J.T.*, 11).
2. *Sheep* : while referring to goats, one cannot forget the associated animal, *namely*, sheep. Fights between rams appear to have been a common sight (*J.T.*, 142, 143 and 221).
3. *Horses* : not unlike goats, horses were wild as well as domesticated. The horses of Sindh were far-famed for their 'noble breed' and were used for driving chariots (*J.T.*, 14 and 161), besides those of *Valāha* breed (*J.T.*, 217). There appears to be marked preference for white-coloured horses (*J.T.*, 14).
4. *Dogs* : were both wild as well as domesticated. Dogs were tended in hards like cows or cattle (*J.T.*, 100).
5. *Donkeys* : hawkers carried their goods on backs of donkeys (*J.T.*, 94). "The ass" is said to be "the mulés sire" (*J.T.*, 308).
6. *Mules* : tt appears that mule-colts were obtained out of a "thorough-bred *Sindha* mare" (*J.T.*, 308) which was considered to be priceless.
7. *Cats* : preyed on mice and cocks (*J.T.*, 71 and 159).
8. *Monkeys* : Only a few monkeys were domesticated. They lived on trees (*J.T.*, 20 and 86). Monkeys were quite numerous (*J.T.*,

173), as can be gleaned from the reference to a retinue of 80,000 monkeys in the *Himālayan* region (*J.T.*, 173).

9. *Cattle* : we come across wild buffaloes in the *Himālayan* region (*J.T.*, 136 140) and and near the *Western Ocean* (*J.T.*, 140). Buffaloes seem to be victims preyed upon by carnivorous beasts like lions (*J.T.*, 74). It may be surmised that transhumance was practised for "tending cattle in their sheds in the forest" (*J.T.*, 150).

VII. CROPS

Having noted the physical and climatic features, animal and plant life, occurring in the *Jātaka* tales, it will, now, not be out of place to enumerate the crops with their areal distribution, wherever possible, as mentioned in them. The cultivation of paddy seems to have been done in *Kośala* (*J.T.*, 47), in the *Himālayan* region (*J.T.*, 247) and *Malla* Kingdom (*J.T.*, 276) and in the kingdom of *Banāras* (*J.T.*, 94). There is also a reference to a 'thicket of red paddy', *that is*, not raised under cultivation (*J.T.*, 247), and wild paddy grew in Ceylon (*J.T.*, 101). Corn is mentioned to be raised in *Kośala* (*J.T.*, 50). Barley was cultivated in the kingdom of *Banāras* (*J.T.*, 94). It is curious to note that there is not a single reference to wheat cultivation. Other cultivated plants included sugar-cane in the *sub-Himālayan* region (*J.T.*, 251), sesame (*Sesamum Indicum*) in the kingdom of *Banāras* (*J.T.*, 138), and mustard (*Brasica juneca*) in the kingdom of *Banāras* (*J.T.*, 148). A number of beans were also raised by cultivation, namely, panic seed (*J.T.*, 298), timbaru seed (*Diospyros Embryopteris*) (*J.T.*, 300), etc.; turmeric (*curuma longa*) also seems to have been in use (*J.T.*, 305). The cultivation of vegetables included kidney beans (*Phaseolus acontitifolius*) (*J.T.*, 298), cucumber, pumpkin and gourd (*J.T.*, 250), turnips (*J.T.*, 35), peas (*J.T.*, 87) and chick peas (*Cicer Arietinum*) (*J.T.*, 179). Peas were also used as horse-feed (*J.T.*, 87). Cotton was cultivated but the area of its cultivation cannot be ascertained from the tales (*J.T.*, 206, 261, 199 and 301). Castor oil plant seems to have been raised for its oil (*J T.*, 214).

Gardening and horticulture may be reckoned as a subsidiary occupation allied to agriculture (*J.T.*, 26, 50 and 285). Flower-gathering was an outgrowth of gardening (*J.T.*, 7 and 198) for making wreaths (*J.T.*, 198) and garlands of flowers (*J.T.*, 22 and 235).

VIII. ANIMAL REARING

Closely associated with agricultural activities was animal rearing. Numerous references to buffaloes, cows, oxen, bulls, etc., point to the conclusion that cattle-rearing had been quite an important economic activity from the hoary past (*J.T.*, 47, 48, 49, 100, 125, 294 and 298). In some tales, grass and pastures have been mentioned which were apparently utilised for grazing cattle (*J.T.*, 8, 124 and 221). A variety of grasses, straw, chaff, rice gruel, sesame flour and kidney beans were in use for cattlefeed (*J.T.*, 298). Cattle were kept for their products such as milk, curds, buttermilk and ghee (*J.T.*, 16, 68, 76, 249 and 250). Oxen and bulls were used for ploughing fields and draught purposes. Besides these, goats, sheep, horses, donkeys and mules were domesticated for various purposes. The meat of goats was offered in religious sacrifices and also consumed by the meat-eating people (*J.T.*, 11). Wool was obtained from sheep and woven into blankets. Horses, donkeys and mules were utilised for draught purposes mostly. The uses of tamed elephants have been already mentioned above. Some wild animals like tigers were kept in captivity by the wealthy, nobles and royal families for pleasure and show, though they are "fierce and savage by nature" (*J.T.*, 149).

IX. FOOD STUFFS

Having known the particulars of agricultural products and animal-rearing activities occurring in the Jātaka tales, we may, now, take note of food-stuffs mentioned in the tales. A large range of food stuffs has been referred to in them which include both vegetarian and non-vegetarian items. Rice seems to have been one of the staples and was used in various forms (*J.T.*, 52, 76, 94, 144, 147, 161, 183 and 237). Boiled rice was in common use (*J.T.*, 51, 107 and 305). Porridge was also made out of rice (*J.T.*, 195, 236 and 263). Other menu of vegetarian food must have been some sorts of gruel (*J.T.*, 236), curry (*J.T.*, 16), parched corn (*J.T.*, 46), cakes (*J.T.*, 256), perhaps, made out of barley flour, molasses (*J.T.*, 7, 50, 160 and 249) and vegetables. A certain section of the people seem to have been strictly vegetarian in their diet, perhaps, because of religious considerations.

With cooked or roasted food, several kinds of sauces and spices were used (*J.T.*, 67 and 107), specially, ground pepper. Fruits such as apples, jujubes (*J.T.*, 135) and mangoes (*J.T.*, 173) seem to be supplementary items of diet (*J.T.*, 97, 98, 106, 124, 252 and 267). Honey appears to have entered into diet in notable quantity (*J.T.*, 160, 249 and 304), as we come across honey-cakes (*J.T.*, 250) in the tales. Oil also seems to have been a part of diet (*J.T.*, 183).

Besides vegetarian food-stuffs, flesh or meat of certain animals, commonly of goats and pigs, cooked or roasted (*J.T.*, 24, 71, 73, 131, 138, 194, 224, 247, 250 and 301), fowls and fish were articles of non-vegetarian diet. Meat with rice was also consumed (*J.T.*, 131). Milk, curds, buttermilk and ghee were other animal products used as human food (*J.T.*, 16 52, 68, 76, 91, 137, 249 and 307).

At the end of a meal, the habit of chewing fragrant or ordinary betlenut seems to have been in vogue (*J.T.*, 33 and 124).

X. OTHER OCCUPATIONS

It need hardly be told that agriculture formed the main occupation since times immemorial in India. Associated with it were also pastoral and animal rearing occupations and horticulture (*J.T.*, 7, 18, 50, 198 and 285). In addition to these, mining, industries, handicrafts, trading, etc., comprised the remaining occupations of the contemporaries.

(a) *Mining*

It may be safely concluded that a number of minerals were extracted which include precious and semi-precious minerals and metals such as gold (*J T.*, 27, 33, 34, 35, 44, 175, 200 and 204), silver (*J.T.*, 27, 37 and 200), rubies (*J.T.*, 27), diamonds (*J.T.*, 27), turquoise (*J.T.*, 285), *lipis luzuli* (*J.T.*, 18), shell stone or corals (*J.T.*, 200), pearls (*J.T.*, 27, 243 and 255), cat's eye (*J.T.*, 27), other gems (*J.T.*, 304), and commonly useful mineral products, *namely*, copper (*J.T.*, 26) and salt (*J.T.*, 131, 144 and 180). It can be gleaned that as salt had not been available in the *Himālayan* region the people from there came down to the plains to the south to procure its supplies (*J.T.*, 144 and 180). Since several articles of domestic and agricultural utilities made of iron are mentioned (*J.T.*, 200), iron ore must have been also exploited from many fields.

(b) *Forestry and Forest-based Occupations*

Forestry seems to have attained a certain level of development (*J.T*, 247). The extraction of timber, collection of fire-wood, medicinal plants and herbs and carpentry may be mentioned among forest-based occupations. Carpentry naturally depended on the timber-supply from forests (*J.T.*, 25 and 81). The transport of 'cartload of logs' (*J.T* , 116 and 139) suggests a heavy demand for wood both for house-building and fuel (*J.T.*, 288 and 305). The items of furniture occurring in the tales are stools (*J.T.*, 28, 212 and 262), beds, chairs (*J.T.*, 62) and couches (*J.T.*, 154, 238, 250, 260 and 277).

Stick-gathering (*J.T.*, 8), faggot-bearing (*J.T.*, 9) and bird-snaring (*J.T.*, 236) were naturally dependent upon the resources of forests. Carrying poles were made either of bamboo or wood (*J.T.*, 247 and 286). Carts, chariots and festal cars were mostly made of wood (*J.T.*, 14, 65, 151, 160, 161, 202, 238, 243, 264 and 268). "Wooden watering pots" were also in use (*J.T.*, 26 and 47). The reference to "brittle wood" implies indirectly tough wood also.

Wicker work may be treated as one of the forest-based occupations (*J.T.*, 285). A large number of basket-makers (*J.T.*, 123) must have been engaged in making baskets from bamboos of forest belts (*J.T.*, 222) and osiers obtained from riveraine tracts (*J.T.*, 48 and 98) for domestic uses, for example, food baskets (*J.T.*, 254), grain baskets (*J.T.*, 77), etc. The making of palm leaf fans (*J.T.*, 285) and jewelled fans (*J.T.*, 32) may also be added.

(c) *Leather Work*

Skins and hides of domesticated animals were utilised by leather working class (*J.T.*, 256) for making articles of leather, of which straps (*J.T.*, 14), traps of leather (*J.T.*, 104). deer skin couches (*J.T.*, 167), skin bags (*J.T.*, 167), leather sacks (*J.T.*, 256), leather parachutes (*J.T.*, 200) and water skins (*J.T* , 26) are mentioned. Tiger skin, panther hide, and deer skin were used (*J.T.*, 28, 32 and 232) by some for dress as well as decorative purposes (*J.T.*, 273). Religious mendicants, it appears, used leather garments (*J.T.*, 142).

(d) *Textiles*

The hand-woven textiles of cotton (*J.T.*, 209), wool (*J.T.*, 244) and linen (*J.T.*, 278) obtained in the contemporary period of the tales. A variety of cloth is mentioned which included cloth of gold, white cloth, suggestive of cloth of other colours, stout cloth (*J.T.*, 221) indicating also delicate cloth, and thick cloth (*J.T.*, 39) implying also thin cloth. The garments (*J.T.*, 306) referred to are red garment (*J.T.*, 175), undergarment (*J.T.*, 176) and loin cloth (*J.T.*, 220). Other items of textiles include robes (*J.T.*, 207 and 279), kerchiefs (*J.T.*, 212) and woollen rugs (*J.T.*, 267), fine rugs (*J.T.*, 216), yarns of cotton of different colours (*J.T.*, 209 and 234) and woven wool (*J.T.*, 304). The production of valuable blankets (*Kambala*) and of woollen shawls obtained in *Gāndhāra* (*J. VI*, 500-1, quoted by *Rāyachaudharī*, 1953).

Twisting of ropes (*J.T.*, 257, 290 and 360) and cords (*J.T.*, 244) was an allied minor industry associated with textiles.

(e) *The Manufacture of Sugar*

The description contained in the tales serves to reveal that the manufacture of sugar from sugar-cane juice was the only somewhat large-scale industry worth the name. Sugar-cane juice was boiled for obtaining molasses (*J.T.*, 7, 56, 160 and 269) and sugar was manufactured in sugar mills (*J.T.*, 50 and 116).

(f) *Metal-working*

Several references to black-smith or smith (*J.T.*, 117, 255 and 278) are clearly indicative of the making of iron articles which include agricultural implements, such as plough-shares (*J.T.*, 109), spades (*J.T.*, 48, 253 and 292) and grass-cutters (*J.T.*, 256); domestic articles like axes (*J.T.*, 91 and 256), posts (*J.T.*, 199), chains (*J.T.*, 10 and 199), knives (*J.T.*, 222), an instrument for cutting bamboos (*J.T.*, 256), iron staff (*J.T.*, 256), three-pronged forks, augers, hammers, pegs (*J.T.*, 256), mattock (*J.T.* 258) and casket (*J.T.*, 261); and weapons, *namely*, sharp swords (*J.T.*, 67, 156, 178, 216 and 280), arrows and javelins (*J.T.*, 228) and clubs (*J.T.*, 45). Apart from iron goods, other metals and alloys were in use, for example, copper for making bowls (*J.T.*, 26) and brass (*J.T.*, 200).

(g) *The Making of Musical Instruments*

Music and dancing seem to have been quite popular and favourite among the public. There were professional dancers and singers among both sexes (*J.T.*, 186 and 233) as well as ministrels and mimic dancers (*J.T.*, 268). There is a reference to a band of dancing women of low degree, given a religious sanction, in the kingdom of *Malla* (*J.T.*, 275). Several varieties of musical instruments are mentioned, such as drums (*J.T.*, 26, 91, 198, 234, 238, 246, 262, 276 and 293), Kokonada lute (*J.T.*, 277 and 283), and big lute (*J.T.*, 186). There were also *nautch* (dancing) girls (*J.T.*, 167).

(h) *The Preparation of Medicines, Drugs, Cosmetics, etc.*

There are two explicit references to surgeons in the tales (*J.T.*, 67 and 242). For healing and curing, they must have used medicines and drugs, of which astringent lotion and ointment (*J.T.*, 97) are mentioned. Cosmetics include perfumed powder (*J.T.*, 161 and 262), other perfumes (*J.T.*, 38, 154, 161, 163, 168, 195, 178, 220 and 235), perfumed water (*J.T.*, 235), aromatics (*J.T.*, 38), scented water (*J.T.*, 308) and sandal oil (*J.T.*, 189) obtained from sandal wood (*J.T.*, 47 and 292). Incence also was in use in those days (*J.T.*, 38 and 175). Flowers of *Sabbamhāraka* (unidentified) and *Piyangu* (*Setar iaitalica*) are said to have been used for preparing scents (*J.T* , 299).

(i) *House-building*

The country, as depicted in the tales, appears to have been quite populous, with numerous rural and urban settlements. It needs hardly be said that the construction of buildings must have been a flourishing activity, engaging a large number of persons. Houses seem to have been built of wood (*J.T.*, 81) near the forested belts, and also of stone, as can be inferred from the stone-cutting industry (*J.T.*, 71) and allusion to a master mason (*J.T.*, 233). Stone was also used for making benches (*J.T.*, 85).

(j) *Jewellery and Ornament-making*

Under mining, a number of precious metals, stones, pearls and corals have been mentioned already. Gold (*J.T.*, 255), silver, diamonds, pearls, ivory and corals were utilised for making ornaments (*J.T.*, 61, 157, 185, 200, 217, 234 and 309). Specific kinds of ornaments mentioned are necklaces of pearls (*J.T.*, 299 and 310), jewelled bracelets (*J.T.*, 274), rings on hand (*J.T.*, 274), signet rings (*J.T.*, 216), ear-rings (*J.T.*, 198) and bead necklaces (*J.T.*, 63). Decorative articles were also made, such as crystal caskets (*J.T.*, 46), golden bowls (*J.T.*, 49 and 283), golden spoons (*J.T.*, 161), golden cages (*J.T.*, 223), golden litters (*J.T.*, 205), thrones of gold (*J.T.*, 34), glass fixed to ivory handles (*J.T.*, 292),[19] gold images (*J.T.*, 278) and golden mirrors (*J.T.*, 120) (cf. *Kāngle*, 1.20.16).

(k) *Trade and Commerce*

Large-scale and retail trading and commercial activities can be gleaned from the tales. The distinction between land-traders and sea-traders shows that shipping was also in a flourishing state (*J.T.*, 8, 9, 91, 99, 100 and 174). One tale relates to a shipwreck in which five hundred traders were involved (*J.T.*, 100). The articles of trade specifically mentioned are horses, particularly of *Sindha* (*J.T.*, 8) and wine (*J.T.*, 242). *Bhārukachha* (Modern Broach) appears to have been an important trading port in those days (*J.T.*, 155). Hawkers of goods (*J.T.*, 94), green grocers (*J.T.*, 135), fruiters (*J.T.*, 134) and fruit-sellers (*J.T.*, 211) may be classed in the category of retail traders.

The Bāveru *Jātaka* narrates that the Indian merchants exported peacocks to Bāveru, which is identified with Babylon (*Cowell*, Vol. III, No. 339).

(l) *Miscellaneous Occupations*

Fishing appears to have been a minor occupation (*J.T.*, 137).[20] In addition to the industries, handicrafts and occupations, cited above, some people derived their livelihood from some other crafts and professions. Some people were engaged in the display of physical prowess and skill for earning their bread, for example, acrobatics (*J.T.*, 107), archery (*J.T.*, 59, 88, 155 and 164), running and tumbling (*J.T.*, 133 and 234), wrestling (*J.T.*, 198) and peashooting (*J.T.*, 51). Some others sought to develop their mental faculties for teaching, such as professors (*J.T.*, 95) and for preaching associated with family priests (*J.T.*, 95 and 96), training of animals involving elephant trainers (*J.T.*, 131), snake charmers (*J.T.*, 170) and adopting recreational activities like jugglery (*J.T.*, 234), mimicry (*J.T.*, 268) and magic (*J.T.*, 120). Other professionals included cooks (*J.T.*, 285), potters (*J.T.*, 167 and 284) for making earthen-wares and metal-wares, turners (*J.T.*, 363) and some persons were engaged in transport services.

(m) *Means of Communication and Transport*

The means of communication and transport may be grouped under two broad categories; land and water. The means of circulation on land were highways (*J.T.*, 52), roads (*J.T.*, 68, 124, 132, 151, 185 and 228), carriage roads (*J.T.*, 79), streets (*J.T.*, 52) and footpaths (*J.T.*, 305). The roads were in a bad state, as can be inferred from the statement that "rain fell in the night and flooded all the hollows in the road." (*J.T.*, 235). Roads were also unsafe, being infested with wild beasts like tigers and buffaloes (*J.T.*, 60) and robbers and thieves (*J.T.*, 156). The means of locomotion on land were chariots (*J.T.*, 14, 65, 137, 161, 202, 238 and 250), carriages, covered or uncovered (*J.T.*, 143), ox-pulled wagons (*J.T.*, 64), carts (*J.T.*, 160 and 193), cars[21] (*J.T.*, 243 and 264) and festal cars (*J.T.*, 268). Carts were used for transportation of molasses, cakes (*J.T.*, 160). logs of wood (*J.T.*, 116 and 139) and timber (*J.T.*, 175), according to the specific references in the tales. Donkeys (*J.T.*, 94) and oxen (*J.T.*, 122) were common draught animals. Carrying-poles for transporting small quantities of goods were used (*J.T.*, 247 and 286), A few streams might have been bridged (*J.T.*, 174).

Streams and sea formed the waterways on which canoes (*J.T.*, 256). rafts (*J.T.*, 82) and ships (*J.T.*, 53 and 99) were used for 'traffic in goods and persons'. There were some ports developed and maintained for maritime trade (*J.T.*, 155).

Birds were trained to carry letters and other written messages (*J.T.*, 149).

XI. HUMAN SETTLEMENTS AND DWELLINGS

At the end, now, it remains to discuss about human settlements and dwellings. The distinction between 'towns people' and 'country people' (*J.T.*, 269) is clearly indicative of both urban and rural population. "A succession of villages and hemlets...till the frontiers" (*J.T*, 256) and "sixty thousand villages" (*J.T.*, 273) obviously suggest a large rural population. The explicit mention of "dwellers on frontiers" is interesting in so far they were distinguished from others. Some references to former's rebellious and irredentist activities (*J.T.*, 87 and 207) point to the conclusion that the contemporary governments had a feeble hold and control over their frontiers.

(a) *Rural Settlements*

Villages (*J.T.*, 123) and towns (*J.T.*, 54, 177 and 228) were walled, with gates for exit and entry.

Sites of villages were mostly on river banks (*J.T.*, 92, 186 & 216). Rural dwellings were no more than huts with walls of grass (*J.T.*, 171), leaves (*I.T.*, 140, 180 and 210) and reeds (*J T.*, 266). A typical hut described in one of the tales is said to be made "with trunks of fig-trees for foundation and reeds inter-woven for the walls; a door and...a path for walking". (*J.T.*, 230). For storage of grains, there were granaries or jars (*J.T.*, 271). Some grain stores seem to have been high enough to require the use of ladders for taking out grains (*J.T.*, 122).

In a nutshell, rural dwellings were constructed with materials provided by nature and readily and cheaply available at hand to the people.

The low castes lived in separate and independent villages or hamlets. (*J.T.*, 212). There is a categorial reference to a "village of carpenters", not far from *Banāras* "in which five hundred carpenters lived" (*J.T.*, 81). Alternatively, there were separate quarters for different castes or professions, as suggested by Washermen's Street (*J.T.* 198). Hermits seem to have their detached settlements (*J.T.*, 92). Sites for hermitages were selected in spots "well-watered, and convenient for getting of wild fruits" (*J.T.*, 204). Barns formed a part of rural dwellings (*J.T.*, 51) and some rural dwellings seemed to have been provided with separate larders or store-rooms (*J.T.*, 107 and 108).

(b) *Urban Settlements*

Urban dwellings appear to be far more substantial, spacious and strongly built as compared to their rural counterparts. Royal palaces were mostly at least two-storeyed buildings (*J.T* , 148 and 160). A royal priest's house "was seven stories high and had seven gateways" at *Banāras* (*J.T.*, 38). Urban centres had spacious houses, high and large palaces and mansions of costly stones (*J.T.*, 237) with roofs (*J.T.*, 147) or terraces (*J.T.*, 185). Urban dwellings, unlike those of rural areas, had several doors and windows. The royal palaces had attached gardens (*J.T.*, 147), horse stables (*J.T.*, 164 and 284) and elephant stables (*J.T.*, 172, 192, 281 and 281). Royal palaces were also provided with bathing rooms (*J.T.*, 279), banquet halls (*J.T.*, 285), separate chambers for princes and princesses (*J.T.*, 287), chambers of state (*J.T.*, 34), halls of justice (*J.T.*, 19 and 196), large kitchens and bed chambers (*J.T.*, 231).

Banāras, *Rājagriha*, *Srāvastī*, *Sāketa*, *Kusinārā* and *Champā* ranked among the six leading cities of India down to the death of Gautam Buddha, (*Rāyachaudharī*, 1953).

The importance of cities and towns, occurring in the tales, can be cited as below :

1. *Banāras* : was the "chiefest city of all India" (*J.T.*, 218). There are numerous references to it in the *Jātaka* tales bearing witness to its superiority over other cities.

2. *Taxilā* : was a seat of learning (*J.T.*, 78, 79, 86 and 102) in the kingdom of *Gāndhāra*.
3. *Rājagriha* : was a trading centre "for salt and vinegar" (*J.T.*, 180) and the capital of *Magadha* (*J.T.*, 267).
4. *Bhārukachha* : appears to be an important port and centre of maritime trade (*J.T.*, 154).
5. *Asitanjānā* : was the capital of *Uttarpatha* in *Kāmsa* district (*J.T.*, 196).
6. *Ayojjhā* (Ayodhyā) : was the seat of the capital of the earliest kingdom of *Kośala* (*J.T.*, 199) (*Rāyachaudharī*, 1953).
7. *Dvāravatī* : "had on one side the sea and on the other mountains" (*J.T.*, 199) and was a trading centre (*J.T.*, 200).
8. *Sāgala* (Sialkot) : was located in the kingdom of *Madda* (*J.T.*, 216)
9. *Dantapura* : can be inferred to be the capital of *Kalinga* (*J.T.*, 217).
10. *Mithilā* : was the capital of the kingdom of *Videha*, "seven leagues in extent" (*J.T.*, 228 & 299; also *Siveru Jātaka*, *Cowell* Vol. III, No. 339). At its four gates were four market towns (*J.T.* 546). The *Mahājanaka Jātaka* contains the following description of the city :

    "By architects with rule and line laid out in order far to see
    With walls and gates and battlements, traversed by streets on every side,
    With horses, cows and chariots thronged with tanks and garden beautified,
    Videha's far-famed capital gay with its knights and warrior swarms,
    Clad in their robes of tiger-skin, with banners spread and flashing arms,
    Its Brāhmins dressed in Kāśī cloth, perfumed with sandal, decked with gems,
    Its palaces and all their queens with robes of state and diadems.
    (*Cowell*, Vol. VI, No. 539)

    Mithilā is identified with *Janakapura* in modern Nepalese territory.

11. *Kampillā* : was the capital of *Uttar Pānchāl*.
12. *Ujjenī* : was the capital of *Avantī* (*J.T.*, 235).
13. *Ariṭṭhapura* (Sanskrit : *Aristapura*) : was the capital of the kingdom of *Śivī* (*J.T.*, 241) and may be identified with *Ptolemy's*

Aristobotha in the north of the *Punjāb* (J. VI, quoted by *Rāyachaudharī*, 1953). It has been conjectured that it is *Jetuvaṇa* (Jettuona) lying in the kingdom of *Śivī* and identified by N.L. Dey with *Nagari*, 11 miles north of Chitore.

14. *Sāketa* : after the decline of Ayodhyā, it rose into prominence (*Rāyachaudharī*, 1953).
15. *Sāwatthi* : (Srāvastī) or Sāhet-Māhet on the Rāptī, then known as Ajirāvatī, later capital of *Kośala*.
16. *Kuśāwatī* : was the royal city of the kingdom of *Malla* (*J.T.*, 275).
17. *Kapilavastu* : is said to be surrounded by seven walls. The walls were 8 cubits high (*J.T.*, 63).
18. *Vidiśā* (Vediśānagar or Vessangagara) : was famous for sharp edged swords (*J.T.*, III, 338, quoted by *Rāyachaudharī*, 1953).
19. *Alāvi* (Sanskrit : *Atāvī*, cf. *Atāvikā* or *Alābhiya*) : based on contemporary Buddhistic authorities, Alāvi stood close to a large forest (*Rayachaudhari*, 1953). Cunningham and Smith identify its location in the *Ghāzīpur* region of the Uttar Pradesh of today, basing their conclusion on *Yuan Chwang*. (*Watters* : Yuan Chwang, II, 61 and 340). It was the capital of the kingdom of the same name.
20. *Vaiśālī* : was the capital of the Vrijjian Confederacy lying to the north of the *Ganges* and extending as far as Nepal Hills. On the west, the river *Gandak* seems to have separated it from the *Mallas* and, perhaps, also *Kośalas*. Eastwards, it may have extended towards the forests skirting the river *Kośī* and the *Mahananta*, (*Rāyachaudharī*, 1953).
21. *Kusinārā* : the site of the town lay near *Kasiā* and was the capital of one of the parts of the bifurcated kingdom of Malla (*Ibid.*).
22. *Pāvā* : was the capital of the remaining part of the bifurcated kingdom of *Malla*. The site of this town has not been satisfactorily identified as yet. Its identified site corresponds to the village named *Padanonā*, 12 miles N.N.E. of Kāsia. (Cunningham, 1871). Carlleyle is inclined to identify it with *Fazilpur*, 10 miles S.E. of *Kāsia*, and separated from it by the Kukultā). (*Ibid*).
23. *Kausambī* : its site has been much debated (*Ibid.*). Dr. *Law* accepts *Fahien's* version of its location. (*Siveru Jātāka*, quoted by *Rāyachaudharī*, 1953). Other places, of lesser repute, were *Yeluvana* near *Rājagriha*, *Jetuvana* and *Latthivanyauyana*, not far from *Rājagriha* (*S.J.*, quoted by *Rāyachaudharī*, 1953).

We learn about ruined villages and towns also. From the tale of "The Grateful Mouse", we learn that one by one the whole family died, including the merchant himself. Likewise the whole village became deserted (*J.T.*, 71) The desertion of a city is attributed to the evil of wine-drinking whereby the people became 'idle wretches'. The place became like a deserted city. The merchants also fled from it and came to *Banāras*. (*J.T.*, 248). The scarcity of water seems to have been another cause for the ruin of towns, as recorded in the statement that "towns which cart water perish at no time" (*Foules*, 1965).

Most of the towns and cities, it can be surmised, had "walls, moats and watch-towers" (*J.T.*, 164 and 306) for protection and defence. It can be gleaned that at least the city of *Banāras* had suburbs (*J.T.*, 282). Some towns and cities had play-halls for public recreation and also slaughter houses (*J.T.*, 297), alms-houses near their outer gates or a central place and close to the royal palaces (*J.T.*, 277).

Functionally, the urban centres can be classified into trade centres and State capitals broadly, to which may be added the third category of "seat of learning" with the solitary instance of *Taxilā* occurring in the tales. There is a direct reference to a market-town in the North country (*J.T.*, 58).

NOTES

1. For a critical and literary evaluation of the Jātaka tales, the reader may profit by referring to G.M. Foules *A study of Jātakas*, translated by M.L. Feer (Sushil Gupta (India), Private Ltd.. Calcutta, 1965).
2. Extended over three hundred leagues (*J. V*, quoted by *Rāyachaudharī*, 1953).
3. *J.T.*, 85 and 263 (*Gāndhāra* included within it the vale of Kāśmira and ancient metrolis of *Taxilā*, lying 2000 leagues from *Banāras* (J. No. 406, 90 and 163, quoted by *Rāyachaudharī*, 1953).
4. *Cedī* (*Centaratṭha*) 30 yojanas distant from Jetutavara, inhabited by 60,000 Kshatriyas (*J.*, VI, 5·14-5) (*Ibid.*).
5. One of the nine divisions of *Bhāratvarṣa* (*Sircār*, 1960).
6. In Uttarpatha.
7. According to *Mahābhārat*, *Northern Pānchāla* had its capital *Ahichhatra* or *Chhatravātī*, the modern *Rāmnagar*, near *Anota* in Bareilly district, while the *Southern Pānchāl* had its capital at *Kampilā*, and stretched from the *Ganga* to the *Chambal* (*Rāyachaudharī*, 1953).
8. Refer to the *Malla* territory around *Kuśāvatī*, now identified with Kasiā in Gorakhpur district (*Ibid.*).
9. It cannot be ascertained whether it refers to the extensive sub-continent then known as *Bhāratvarṣa*.
10. Perhaps, this refers to India.
11. In the village named 'Uruvilva' is said to be situated on the river.
12. Indentified by Francis and Thomas with the modern Kaetānīgangā (Glossary at the end of the *Jātaka* Tales.
13. The present states of *Uttar Pradesh* and *Bihar* were heavily forested, with haunts of wild animals in these tracts, as can be gleaned from historical and literary evidences.

14. According to *B.C. Lāw Pterospermum accrifoliam*. (Ancient Indian Flora in Indological Studies, Part-II).
15. It appears to be a hyperbole that "eighty thousand elephants......dwelt in the *Himālayas*" (*J.T.*, 251).
16. The environmental conditions do not appear to be favourable for the existence of Rhinoceros in this region.
17. Kumārsambhava : XIII; 27 and 39 : the different species of Geese have grey legs, pink feet, white fronts and of black colour also (*Encyclopaedia Britannica*, X, 1977).
18. The manufacture of glass was known during *Kautilya's* time (*Kāngle*, 1.20.16). (Numerical figures from *Kāngle* refer to the Book, chapter and verse in their sequence throughout these studies).
19. See also under aquatic animals in the *Supra*.
20. It can be surmised to be a vehicle akin to chariot from the statement : "as a charioteer guides a car."
21. Four hundred *Jātakas* are said to have been pronounced at the place (*Siveru Jātaka*, 21, quoted by *Rāyachaudharī*, 1953).

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3

The Changing Functional Characters of Mahārāṣtra Cave Settlements

ABSTRACT

OUT of the estimated large number of 1200 caves in India, 90 percent of them lie in Mahārāṣtra in four almost parallel longitudinal belts. Some of them are sited amid facinating features of attractive natural scenery. An emphasis is laid on the strategic sites of Buddhist, Brahmanical and Jain caves as famous centres of trade and commerce with convergence of several natural routes on them. These caves attracted to themselves a large population, because of the safe protection and security offered to the people and tradesmen in their sheltered recesses. This brief discourse serves to highlight the notable transformations, modifications and changes in the functional characters of caves with the onward march of time.

I. INTRODUCTION

The main objective of this paper is to highlight the areal distributional pattern and changing functional characters of artificial cave-dwellings and settlements in Mahārāṣtra with the onward march of time in Mahārāṣtra in particular and India in general.

Before Man had learnt to construct artificial shelters, he sought protection against the elements of nature in readily available natural shelters, provided by natural caves. In the ancient India, natural shelters, like cave-dwellings, normally, had been found in protected and nodal localities of mountains and hilly tracts or valley-sides with steep scarps (*Tāmaskar*, 1968).

With the onset of the all-powerful hegemony of the Satavahan Empire on the Deccan Plateau of India, after the fall of the Mauryan Empire, the capital of the former shifted to Pratiṣthāṇa (modern Paithaṇ) on the Godāvarī River. For a few centuries since the commencement

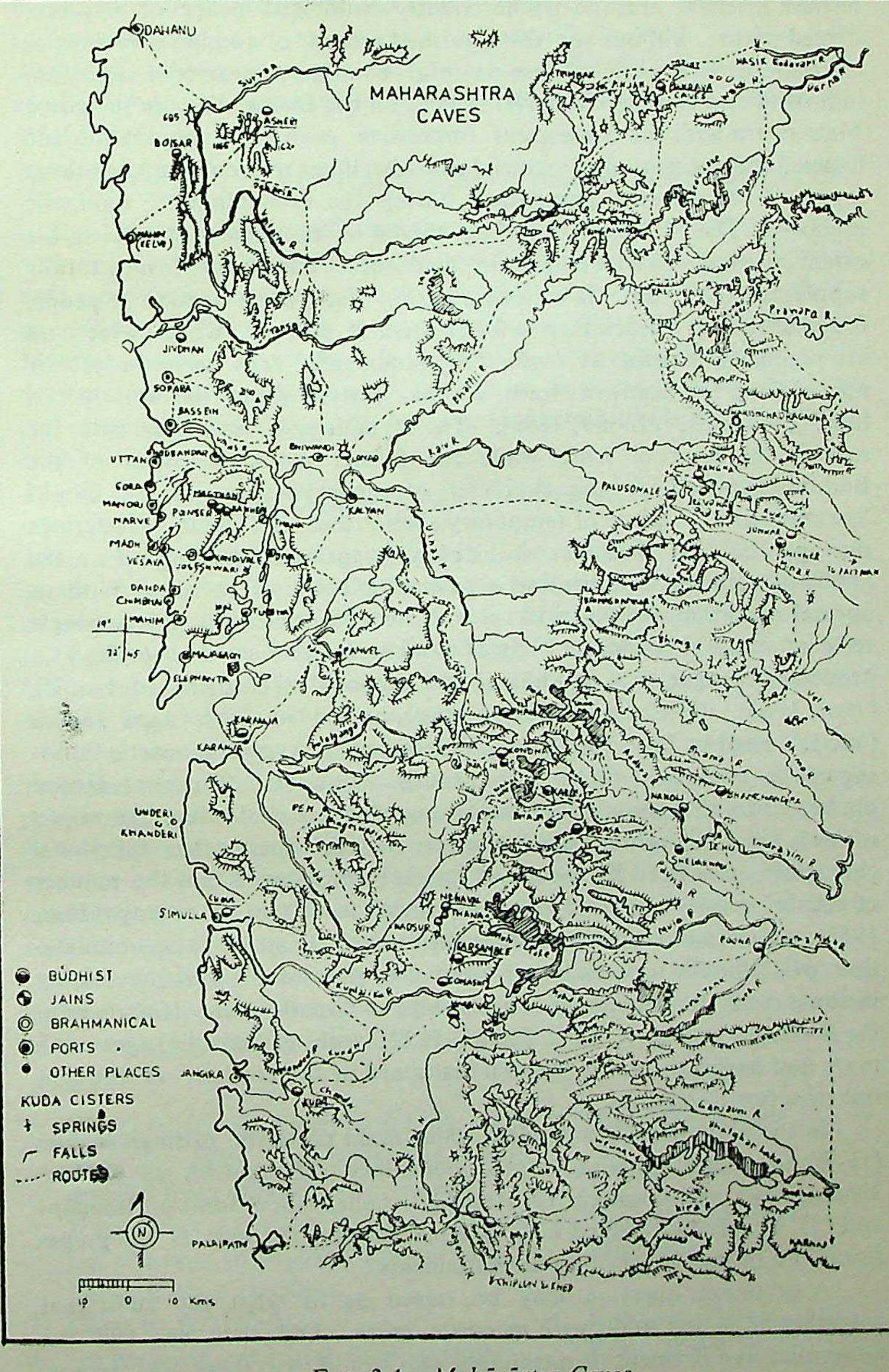
MAHARASHTRA CAVES
DAHANU
BOISAR
MAHIM (KELVA)
JIVDHAN
SOPARA
BASSEIN
UTTAN
GORA
MANORI
NARVE
MADH
VESAVA
DANDA
CHIMBAI
MAHIM
MAJAGAON
ELEPHANTA
KONDIVALE
JOGESHWARI
BHIWANDI
LONAD
KALYAN
PANVEL
KARANJA
UNDERI
KHANDERI
PEN
SIMULLA
JANGRA
KUDA
PALAIPATN
TRIMBAK
NASIK
Godavari R
Pravara R
PALUSONALE
JUNNAR
SHIVNER
KONDANE
KARLE
BHAJA
BEDASA
SHELARWADI
NENAVLI
THANA
NADSUR
KARSAMBLE
GOMASHI
POONA
19°
72° 45
BUDHIST
JAINS
BRAHMANICAL
PORTS
OTHER PLACES
KUDA CISTERS
SPRINGS
FALLS
ROUTES
N
10 0 10 Kms

FIG. 3.1 : *Mahārāṣtra Caves*

of the Christian era, the whole country witnessed peace of unprecedented nature, without any distinguished record of foreign invasions or internal intercine wars. These peaceful conditions promoted agrarian, industrial and commercial advancement on the Deccan Plateau including Mahārāṣtra with the consequent impressive growth of population and fostered the excavation of artificial cave-dwellings to accommodate atleast a part of the swollen population during the contemporary economic prosperity-The artificial dwellings served to supplement on a visible extent natural cavedwellings in favourable locations, if not totally supplanted the latter. It is not surprising that a large section of people found shelter in artificial caves for residential purpose, which were and are popularly known as *leṇās*. Etymologically, *leṇā* means a 'private abode' from the Sanskrit form, *layana*, derived from the verb '*li*' to hide. (*Williams, Monier*, 1899). The etymology serves to indicate the *explicit* character of *leṇā*, while the former monk-settlement of the Buddhists spelled out the character of rendezvous, a sort of monks 'caravan-sarai', a place of temporary shelter and rest from wanderings during rains. A *leṇā* was specifically a 'private dwelling', *i.e.*, the abode of a limited number and a particular body of monks. Without normal restrictions to out-siders it was intended specifically for a single resident *sangh* or corporate body of monks. *In other words*, a *leṇā* was a Monastery proper, not a shifting and seasonal settlement of monks. (*Dutt*, 1968). Of *Panchlenānī* (five *leṇas*), named in Cullavagga Jātaka (VI. 1, 2 cited by *Dutt*, 1968), only Vihara became typical monastic building of the north and Guha of the south. However, it cannot escape our attention that most of our historians convey a misleading impression of *leṇās* as exclusively monk-settlements without their other functional characters, unnoticed by them. It has been mentioned that the number of cells of monks in a *residential* cave varied from two to twenty (*Dutt*, 1968), which can hardly account for the extensively spacious accommodation, available for a much larger number of persons in *leṇās*, assuming in some cases the magnitude of townships or small towns (*Gazetteer of the Bombay Presidency*, XIV, Thāṇā, 1822) with explicit linkages with ports and harbours on the western sea-board of the Deccan, as brought out by a few historians.

In the plan of *guhā*-settlement, *three* main parts are distinguishable: (1) Residential caves with monks' dormitory cells known as *Garbha*, *Vihāra*, *Leṇā*, and *Ovaraka*. (2) Assembly halls, called *Śālās* or *Maṇḍaps* and (3) Prayer halls called *Cetiyagharas*, forming the hub of congregational life of the *so-called* monk-settlements.

A pertinent question may be raised as to what the additional assembly halls had to do with *monastic order*. Did they not suit the convenient requirement of merchants who would like them ? Moreover, the monasteries of the region had been provided with some inner apartments without light or ventilation which could be used for the safe storage of costly commodities and valuables. Evidently, these functioned as ware-houses for merchandise of the contemporary mobile merchants. (*Mahāley*, 1978).

II. THE GENERAL LITHOLOGICAL CHARACTERS OF CAVES

It is asserted by *Dutt* (1968) that the Deccan Trap is comparatively soft rock which is *prima facie* wrong. Most of the *leṇās* have been excavated in bold scarp-face of compact, massive, durable, tenacious, hard and close-grained trap or basalt, with the honourable exception of Bhāndak and Māhūna, scooped out in the soft Gondwānā sandstone. The lithological characteristics of basalt not only facilitated fine and minute carvings and attractive embellishments, but also lent durability to the excavated *leṇās*.

III. THE DISTRIBUTIONAL PATTERN OF LEṆĀS

There are about 1200 explored caves in India (*Joglekar*, 1952), out of which 90 percent are in Mahārāṣtra. An analytical interpretation of the accompanying map serves to reveal *four* longitudinal belts of caves: (1) Seaboard caves in ports and harbours, (2) Coastal *leṇās* in Konkana hill-studded lowland, (3) Sahyādrī *leṇās* on the precipitous scarp-face and (4) Deśa *leṇās* on the Mahārāṣtra Plateau.

The map depicts the several groups of caves of various Indian religions, with different sources of natural or artificial supplies of water. A close and minute analysis of the map exhibits also the larger number of Buddhist caves, distinctly outnumbering those of other faiths. The selection of sites of *leṇās*, like human dwellings, have been guided by constant, uninterrupted and reliable water-supply for men and pack animals, seeking shelter *en route* for circulation of commercial commodities from ports to the interior and seawards from the inland collecting and distributing centres such as Pratiṣthāṇa, Tagara, etc. The sources of water-supply may be classified as follows :

Source		*Sites*
1. *Podhīs* (Cisterns), Open reservoirs, some able to catch rain-water/fed with oozings from rocks/hidden springs.	:	Konkaṇa Caves.
2. Natural Springs at the junction of bedding planes of juxtaposed flows of lavas/below laterite cappings.	:	Śivanera, Mahāda, Trimbaka, etc.
3. Close to Waterfalls.	:	Kondāne, Ajantā, etc.
4. On banks of perennial streams/stream-dips.	:	Kārle, Bhājā, Karhātaka, etc.

A few *leṇās* derived their water-supply from wells or water percolating from acquiferous joints of traps.

The map reveals a large number of *leṇās*, excavaded on the seaward facing precipitous and high scarp of the Sahyādrī Range, nearly 1,000 metres in elevation, looking down on the hill-studded Konkaṇa lowland and steep scarps of the spurs of the Sahyādrī, enclosing basins of large and small streams in their broad and mature and even senile valleys of Mahārāṣtra, flowing to the east in obedience to the general easterly tilt of the extensive land-mass of the Deccan Plateau. The occurrence of the remaining caves on the steep scarps of isolated and trap-hills with laterite caps in the Konkaṇa lowland and those at Bhāndakā and Māhūra exhausts the list of sites of *leṇās* in Mahārāṣtra.

It is equally remarkable to note the alignment of *leṇās* on the main range of the Sahyādrī (900-1500 M. above M.S.L.), occurring on the inter-stream areas of short swift-flowing streams, emptying into the Arabian Sea and the long east-flowing streams of mature valleys, almost graded to their sources, with long and short navigable stretches. Their highly perched sites, close to natural gaps on the main water-divide of Mahārāṣtra, are indicative of their being breached by the headwater erosion of streams, tumbling down the scarp of high relative relief in the opposite direction, acting as 'bridge' points for descending down into the hilly lowland of Konkaṇa by steep gradients and comparatively gentle down-grade journeys by natural routes into the basins of the east-flowing rivers.

Further, the map also serves to indicate the natural routes for traders and pack-animals with a marked preference to river-terraces of the latest cycle of erosion, capped with thin apron of immature and dry soil for animals to move on the firm ground with relative ease and facility than on higher altitudes and slopes of mountain ridges and their spurs, avoiding slushy, soft and moist surface immediately on the banks of rivers and their flood-plains, infested with wild animals. The predominance of herbaceous vegetation on stream-terraces provided narrow belts of ready and abundant supply of fodder to grazing animals on their journeys (*Pascoe*, 1950). Ferry services existed at points of stream crossings to transfer goods to any opposite terrace. The rivers of the North Konkaṇa wind in and out among low mangrove-covered salt marshes and are navigable in their lower reaches. (*Spate*, 1957), while those of the South Kokaṇa in use for navigation in their lower reaches for the distance of about 32 kms. (*Techno-Economic Survey of Kokan*). The *leṇās* at the western sea-board such as Simmulla (Chaul), Vaijayanti, etc., are noteworthy in so far as they markedly served as terminal links with the three easterly longitudinal belts of *leṇās* inland. The leading river posts like Kalyāṇa, Mahāda, Chipluṇa, and others served the similiar purpose and were akin in their functional character, as they acted as commercial centres of fame in the contemporary times. The coastal Buddhist caves at Kānherī, Kondivate, Kudā and others formed seats of great monasteries but also served as important store-houses for imports and exports through ports that connected foreign trade to inland commercial centres. These *leṇās* in their own turn were connected to inland trade centres by a second line of *leṇās* that became transitional bases between sea-board *leṇās* and the Sahyādrī *leṇās*, particularly those of the eastern spurs of the Sahyādrī. These were Aśerī, Lonāda, Palusonālā, Thānālā, Nādsura, Karsāmbale, Gomāśi, Amblivalī, etc. On the eastern side of the Sahyādrī Range were also great Buddhist *leṇās*, *namely*, Bhānarā, Nāśika, Junnara, Kārle, Bhājā, Bedasā, Selārwādi, with other *leṇās* at Nānolī, Bhāmchandra and Bhandārā hill and Puṇe (Bhāmbhurdā), Sitwal, Lohārī, Karhādataka and Kudāl. All these are effectively link up the inland trade centres to the coastal ports through Kokaṇa *leṇās*. Interestingly enough, all the *leṇās* of the Sahyādrī are at the entrances of frequented *ghāts* (gaps), *e.g.*, Bhāmarā, Nāśika, Kārle, Karhādataka, etc. *Leṇās* at Ajantā, Pitalkhorā, Ellorā (excluding the Brahmanical and Jain *leṇās*), and Aurangābād are situated at the important passes of the Sahyādrī spurs and had connected links with commodity exchange centres of the inland trade between the north and the south.

The *leṇās* on the saddles of the main Sahyādrī Range and on its spurs have certain interesting physical characteristics, one of which is their sites on the radiating points of streams. Nānāghāt, Ajantā, Nāśika (Trimbaka), Karasāmbale, Ellorā, Pitalkhorā, and Kondāne are some of the striking examples of this peculiar location. The case of Ajantā may be cited as an illustrative example of this where the southeast flowing Khelanā and Dhāmanā and the north-flowing Wāghārā take their rise. The source of the Pūrṇā is also in the proximity of Ajantā. Its wooded defile, perpendicular amphitheatre of about 160 M. in altitude, *leṇās* from east to west in the concave scarp composed of amygloidal trap at an elevation of 12 M. above the bed of the torrent, the ravine ending in a waterfall of seven leaps (Saptakunda) are really fascinating features of the physical setting. The Wāghārā R. cuts through the Ajanta Range a deep gorge and this forms a natural trade route. The Ajantā gorge commands a control over the wide Manmāda and Kāsārā gaps, and the Gotala and Ajantā passes.

IV. THE FUNCTIONAL CHARACTERS OF LENAS

It has been established above that in effect the sole function of *leṇās* was not merely abodes of monks of different religious orders. The location of some of the *leṇās* on sea-board, in river ports and harbours, gaps in the Sahyādrī Range and its spurs and at points of convergence of natural routes manifests the circumstantial evidence of their commercial significance. The convincing direct evidence of their commercial function can be gleaned from donations offered by merchants, merchant-guilds, craftsmen-guilds to these *leṇās*. These shed light on their connection with merchants, bankers and financiers from distant places. The *leṇās* obviously served as storage and halting places *en route* and trade and commodity exchange centres. It has been recorded that Kānherī was a centre of trade and large population on which the *leṇās* at the place depended and flourished (*The Gazetteer of the Bombay Presidency*, Thāṇā, 1882).

It need not be told that marked extension and expansion of agrarian economy, combined with craftmanship of varied and varying description stimulated crafts, trade and commerce and sustained a visibly large volume of commerce inland and with foreign countries, emanating from trading or commercial centres and maintained coastal and river ports in a state of remarkable prosperity and activity. (*Mahāley*, 1973).

The former royal financial support to *leṇās* was not rescinded by Pre-Muslim rulers. But their help to the Post-Mauryan and the Pre-Gupta caves did not emanate from kings. The incentive to *leṇās* as their main stay was the accumulation of monastic wealth that often provided some capital to merchants and carvaneers in the Indian hinterland.

V. COMMERCIAL ROUTES

The foregoing analysis points to the conclusion that the *leṇās* had convincingly commercial function, too. Their marked alignment close to trade route is well worthy of note, which ran from the western seaboard and river ports and harbours such as Kalayāṇa, Thāṇā, Chaula, Kūdā, Mahāda, Chipluṇa, etc., and well-marked passes of the abruptly steep and linear Sahyādrī scarp that lead to the Plateau on the east, marked on the map. Bhrigukachha (Broach) had a most interesting land-route, linking it with Pratiṣthāṇa (modern Paithaṇ).

VI. CHANGING CHARACTERS OF LEṆĀS AND THEIR SITES

As these *leṇās* occupy sites of strategic value, some of them have been crowned with forts and fortifications after the XI century for offensive and defensive purposes. A few instances in point may be cited in support of this inference, *e.g.*, Kalyāṇa, Kānheri, Dhāka and Rajamāchī. Some of the Buddhist *leṇās* underwent transformation as Brahmanical caves with the powerful revival of Brahmanism in India. A few of the *leṇās* in the proximity of the Greater Bombay have passed under the control of Christian missionaries, which has been unfortunate source of bitter feuds between them and non-Christians, reported occasionally in newspapers. Of late, some caves, after a period of neglect, have acquired a tourist interest to Indian and foreign holiday makers, besides their archaeological interest in their own right.

CONCLUSION

The professedly religious nature of the *leṇās*, after exchanging hands from the original faith to the control of other faith/faiths, underwent further transformation into their functional character. From its additional commercial character concomitant with their religious activities, some of these *leṇās*, on account of their strategic locations, became sites of defences and later on to acquire the recreational function, while retaining their archaeological interest for scholars, probing into the historical past of the country.

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4

The Geographic Basis of Kautiliyan Geo-Politics*

ABSTRACT

THE limited geographic perspective of this paper concerns itself with Kautilya's conceptual model of territorial extent and features of an imperial state, with its marked character of *multum in extenso*, endowed with rich and varied natural and human resources, notable spatial differentiations, constituting the field of operations for State policies. In conclusions, pointed attention is drawn to the extended hold over the Tāmil country and further southwards, acknowledging the royal superiority, if not the suzerainty of Candragupta Maurya, in addition to his sway over the remaining parts of India, including Kalinga.

I. GEOGRAPHICAL DATA IN KAUTILYA ARTHASASTRA

As Kautilya's Arthaśāstra is a treatise on statecraft, not a work on geography, its geographical data are neither systematic nor comprehensive, but occur prominently in connection with regions of valuable and useful resources of the country, such as useful animals, *namely*, elephants, horses, cattle, animal products, as well as minerals like gold, silver, iron, copper, pearls, corals, forest produce, agricultural produce, etc. The Arthaśāstra incorporates the names of a few mountains, rivers, localities, regions, towns and parts, tribes and peoples, etc., set forth in Appendix 'A'. A minute and precise examination and identification of these geographical data can hardly serve any useful purpose, as a few scholars, *namely*, C.V. Vaidya, Udaya-Veer Śāstri, G.D. Tāmaskar, H.V. Trivedī and others have covered this ground. The identification of names of a few mountains, rivers, localities, regions/ locations of tribes or peoples continues to defy and remains a matter of controversial debate without possible prospect of its finality, mostly on account of variable recensions of the treatise in manuscripts, discovered so far.

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* This is a part of the Author's proposed major work on *Kautiliyan Geo-Politics*.

II. THE KAUTILIYAN CONCEPT OF IDEAL EXTENT OF IMPERIAL TERRITORY

This paper is principally concerned with the ideal extent of the imperial territory, as envisaged by Kautilya, the evaluation of its attainment by his royal master with the skilful guidance and direction of the former, the areal differentiations of the area of the political operations, processes, interactions, organisation, structure and design.

Kautilya's ambitious goal was a large state, co-extensive with the Indian sub-continent, separated on the north, east and west by mountain barriers and in the south by the sea, which is gleaned from the following statements :

> "Place (space) means the earth. In that, the region of the sovereign ruler extends between the Himavat (Himālaya) and the sea, one thousand yojanas (7250 kms.) in extent across, and corresponds to the (*Kshetra*) or sphere of influence of an imperial ruler (*Cakravartin*)" (Kāngle) : 9.1.17-18).

From the common agreement among historians dealing with the Mauryan empire it appears that Candragupta's empire encompassed the whole of India, including Kāśmir, and, perhaps, also Kalinga touching the Kingdoms of the Colas, the Pāndyas, the Satyaputra, the Keralputra and Tambapannī in the south (*Dīkshitār*, 1953) and also spilled over to Afghanistan, beyond the Sindu River. Candragupta effectively filled in the political vacuum in the north-west caused by departure and death of Alexander by bringing under his own yoke all the territory to the west of the Sindhu River, which included even the Paropanisadae (Kabul), Aria (Herat), Arachosia (Kandahar) and, probably, Gedrosia and Makran (*Smith*, 1914). Small states in the south in the Tāmil region acknowledged the superiority, if not the suzerainty, of the Mauryan Emperor (*Dīkshitār*, 1953). Kalinga constituted an integral part of the empire of the Nandas to which Candragupta succeeded. It rose in rebellion against the latters's successor, Aśoka, who quelled it with an iron hand (*asuravijaya*) (*Op. cit.*). If what has been enumerated above be authentic, Candragupta's sway extended as far as the Tāmil region, wherein also his indirect influence was felt (*Op. cit.*).

The active intervention of the Mauryas in the politics of the Tāmil country has so far escaped notice, but the lines of Mamulanar are very clear in their import. *The political unification of India under the Mauryas* *was very real.* The court of Pātlīputra was interested in occurrences in the southern parts of peninsula. "Vadugas" literally means 'northerners' and was the name applied in Sangam literature to the ancestors of the Telgu-Kannad people living in the Deccan, immediately to the north of the Tāmil country whose northern limit was Vengadam, the Tirupatī Hill (*Shāstrī*, 1955). The Vadugas had participated in foisting the hold of the Mauryan imperialism in the south (*Ibid.*).

While evaluating the attainment of Kautilya, it may be said to his credit that there was little gap between his territorial ambition and actual performance in the real world.

Though Candragupta may not be reckoned as the first emperor in India, because he had supplanted the Nanda ruler in his extensive sprawl of the territory, but, undoubtedly, he was the *first* Indian Emperor, "more than two thousand years ago, who entered into possession of that 'Scientific frontier' sighed in vain by his English successors, and never held in its entirety even by the Moghuḷ monarchs of the sixteenth and seventeenth centuries" (*Smith*, 1914).

III. THE GEOGRAPHIC ATTRIBUTES OF IMPERIAL TERRITORY

The vastness of the territorial extent of the imperial state was naturally calculated to be *multum in extenso* with well-marked areal differentiations, rich in materials and human resources, capable of easy, ready, and effective measures of offensive and defensive policy for protection, safeguard and security of men and wealth of the land. According to the cognitive perception of Kautilya, this country is richly endowed with economic resources and potentialities, abudance of all varieties of land cultivated, uncultivated, forests, highlands, well-watered areas, dry land, stretches of even land and undulating terrain, so as to hold out promise of varied agricultural produce of both wet and dry crops. India even today continues to be pre-eminently the land of agriculture, with its capability for economic self-sufficiency, depending upon climatic variability.

Kautilya's perception had brought into his mental focus this country as a land of warriors, agriculturists, and craftsmen and protection by forts on hills or rivers or by deep and impenetrable forests. With his close familiarity with the western frontier, cognitive perception impressed Kautilya with its many hill-forts. He could also visualise the following essentials of a flourishing country : (1) Forts, (2) Agriculture, (3) Roads, (4) Mines as source of weapons of war, (5) Timbers for supplying materials for construction of forts, carts and chariots, (6) forests of elephants, (7) Pastures for cattle including cows, horses, asses and camels (*Kāngle* : 7.14. 24-26).

Among the valuable geographic altributes of the space of his political operations, Kautilya makes a pointed reference to the need of fortifications in all its component parts, potentiality of supporting not merely indigenous population but also immigrants from foreign countries, with the possession of means of defence, natural as well as artificial, such as mountains, forests, rivers and forts. Within the spatial limits of the country, he postulated a loyal people, devoted to the stout resistance to foreign invasions, with weak neighbouring states on their frontiers. Moreover, Kautilya conjured up the abundance of agricultural land, being not too marshy, or rocky or dry or undulating, or forested, nor should it be exposed to the depredations of wild tribes. They should be "endowed with all works and facilities of social provisions and conveniences, such as shade-giving and fruit yielding trees, gardens of medical plants, rivers, lakes, tanks and resthouses" (*Mookerjee*, 1943). Within their bounds, there should be also abundance of fertile lands, mines of gold and precious stones; vegetable gardens and timber forests and also forests of elephants, grazing fields for cattle, suitable lands for human settlements, reserves for hunters and foresters, and abundance of livestock. The land should be rendered independent of rainfall by the provision of irrigation facilities. He also formulated a network of communication lines and traffic by water and land, valuable merchandise for trade and commerce and manufacture of a variety of finished goods. He entertained a fond hope to raise up the pecuniary level of the people to sustain the burden of adequate army and taxation. He also looked forward to an industrious agricultural population and a body of able and conscientious administrators. For the weaker sections of the population, including the aboriginal tribes, he thought of an aid to the development of their arts and crafts. Kautilya had a crystal clear conception that in the long run, the prosperity and bright future of the country is dependent upon strong moral fibres of the people, its loyalty and character. Hardly any better picture of an ideal state can be presented than that Kautilya has vividly painted. Manifestly, he aimed at the self-contained and self-sufficient imperial state for his royal master. The fragments of travel accounts of Magathenes bear a close and ample testimony to Kautilya's planned and well-defined policy and achievements, attainments and successful performance (*Op. cit.*).

The maintenance of the areal extent of a state in fact raises the question of inviolability of territorial sovereignty. The problem of the inviolability of territorial sovereignty is intertwined with intended economic progress, growth and development of a state.

In the above discourse, the nature and character of various administrative policies of Kautilya with their intended motives and purposes have been spelled out in a bare outline.

In the preliminary conclusion, it may be said that Kautilya was not a theoretical visionary, but combined in him an able and consummate genius of a practical administrator, capable of achieving the set motives and targets of intended policies, largely matched with his actual performance and the results achieved both in the field of political power and the economic base to buttress up the former.

NOTES

1. The present study confines itself exclusively to the geo-political concepts embodied in Kautilya Arthaśāstra as far as possible, without tracing their various stages of evolution and modifications. Those interested in the transformations and modifications in the concept of imperial territory in the Ancient Hindu Tradition may consult Sircar, D.C. : Studies in Geography of Ancient and Mediaeval India, Chapter 1, with profit and advantage.
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APPENDIX 'A'

LOCALITIES AND PEOPLES

Sr. No.	Name	Identification	Original Reference in Kautilya Arthaśāstra	Reference in other works	Remarks
1	2	3	4	5	6
1.	Ahichchhatraka	Capital of north Pāncāla. Modern Rāmnagar in Bareilly District.	*K* : 2.11.35	On the Rāmgangā R. Alī : 135 and 174. *Sircar* : 21 and 92.	
2.	Alakanda	Laccadiva Islands (Kāngle, 118, *F.N.* 42). Possibly in Cp. A country off the coast of the Papper land (*Cb.*).	*K* : 2.11.42	The Jayamangala commentary identities with Ālatsāndrakam (*Cj*) and another version is Ālasandra (*Cb*).	K.A. Nilkantha Shāstrī has quoted Syvain Levi identifying Alakandam with Alexandria (*pp.* 199).
3.	Aṅga	East Bihār	*K* : 2.2.15 Capital of Aṅga was Champa near Monghyr *Alī*. 150 Āndhra (Vy) Abhra, Andhrāka, (*Mark*).	*Sircār*, 27; *Atharvaveda*, V, 22, 14; Mts & *Vmn* Capital at Champā. (Rhy-Davids) 12.	East of Mokamah Spur, West of the Mandargiris, North of Gangā and Rājmahal Hills in the south (*Alī* : 150).

4. Angaras	Between Vīdiśā, the Narmadā, Brahmabardhan and the Pāriyātra Mts.	*K* : 2.2.15	Angareyaka Vana (*Kāngle* : *p*.60 *F.N.* 15).	—
5. Antaravatī	In Kāmrūp (Shāmaśāstry, *p*.91).	*K* : 2.11.67	—	—
6. Aprānta	North Kokaṇa	*K* : 2.11.115	*Sircār* : 155	Aparīta in Vy, *Mts*, *Bmd.* Sopārā, Capital of Aparānta. *Alī* : 175.
7. Ārattā	Vāhīkā near the Vipāsā	*K* : 2.30.29	*Sircār* : 186-7. Meyer : a part of the Punjāb.	*Mahābhārat*, 8.44.81.3
8. Āroha	In the Himalāyas.	*K* : 2.11.81	*Cb*. has Ārota in Himalāyas.	
9. *Aśmakas*	the Central Godāvarī Region near Pratiṣthāṇa (Modern Paithaṇ).	*K* : 2.24.5	According to *Cp* Mahārāshtra. Aratta (*Cs*). *V*.S. *Agrawal* : India as known to Paṇinī : 38.	Assakas in the Buddhist literature (*Rhys Davids*, 14).
10. Aśokagrāmika (Aśokagrāme in/K), Jongaka (Joṅga in	In Kāmrūp (Modern Assam).	*K* : 2.11.61-65	*Commentators.*	

1	2	3	4	5	6
	K), Grameruka, Sauvarṇakudya Pūrṇadvīpaka (Pūrnakadīpa in *K*)				
11.	Bāhlava	Bactria.	*K* : 2.11.88	In the Himālayas *Cb*; *Cs*.	Kāngle's observation : Bactria is more likely : 118 *F.N.* 88. Shāmasāstry's observation on the borders of the Himālaya (*Cf. Jayaswāl*).
12.	Bāhlikā	Bactria Modern Bālkh.	*K* : 2.30.29	*K* : 172 *F.N.* 29	
13.	Cedī	Cedī Karūṣaka-vana lies between Mekala, Tripuri, Daśārṇa, Gangā and Himvat.	*K* : 2.2.15	*Cnn*.	—
14.	Cīna	Cīna	*K* : 2.11.114	—	P.V. Kāne observes that in the Məhābhārat *Cīna* does not probably stand for modern *Cīna* (History of Dharmaśāstra,

				Vol. III, 1946, p. 53). Alī refers to Chīnas on the River Indus, p.171).
15. Das'ārṇas	Das'ārṇa-vana lies between the Das'ārna, Mahāgiri, Vindhya, and Vetrāvatī (Betwā R.).	*K* : 2.2.15	*Cb*	Vetrāvatī-Betwā K : *Cnn.*
16. Devasabhā	Devaśaila (?) (Alī, 105) Devabhadra (?) (Sircār, 203 near the Bhadrā R, tributary of the Tunga R.).	*K* : 2.11.47	—	—
17. Doṅga	In Kāmrūp (Modern Assām)	*K* : 2.11.58	*Cp.*	Cj seems to read Vangakam from the Vangas. Dongāgrāma is referred in *Sircār* : 217-8 in connection with the Gupta find of an inscription of the dynasty in Dinājpur district in north Bengal.
18. Dvādaśa grāma	Near Badrīnāth.	*K* : 2.11.77	*Sircār* : 219	In S on the Himālayas inhabited by the Mlechchhas.

1	2	3	4	5	6
19.	Gauḍa	Kāmrupa Region, Murshidābād District.	*K* : 2.13.10	*Sircār* : 110-122	—
20.	Gośīrṣa	Unindentified	*K* : 2.11.44	Country : *Cb* :	More likely to be a mountain : *Cj*.
21.	Grāmeru	*Ibid.*	*K* : 2.11.46	A region : *Cb*	A mountain *Cj*.
22.	Hari	—	*K* : 2.11.45	Haridesh : *Cb* :	From the mountain shaped like hari, *i.e.* monkey *Cj*. *Kāngle* observes that it refers to the colour tawny.
23.	Hātaka	Region unindentified.	*K* : 2.13.3	—	—
24.	Indravāna	Kalinga/Kālindī	*K* : 2.11.37	Kalinga : *Cp* Kālindī : *Cj*	*Cb*'s reading seems to Iṣuvānaka or Iluvānaka.
25.	Indrāvanaka (Shāmśāstry XI-11, *p*.89).	Kalinga	*K* : 2.11.37 (Indravana).	—	Shāmśāstry's identification : Kalinga.
26.	Joṅgaka and Tarūpa Japa Joṅga, Turūpa.	In Kāmrup (Modern Āssām).	*K* : 2.11.47-48	—	S. & *K*. agree in their identification.
27.	Kalinga	In the region of Bhubaneshwar.	*K* : 2.2.15 2.11.115 2.13.21	Sircār : 134-149 *Vy*: *Mts*, *Bmd*, *Mark*, *Vmn* and others.	Kalingas are also a group of people (*Alī*, 173).

28. Kamboja	Ancient Kingdom, north of Gāndhāra.	*K* : 2.30.29 10.1.4	Sircār : 94	*Shāmśāstry* : Bordering Bahlikā. (Samgha type of rule. Kāngle, 198, *F.N.* 29), Dwārkā as capital in the extreme north-west of the country (*Rhys Davids*, 15).
29. Kāśī	Country around Vārāṇasī.	*K* : 2.11.106 (Kāśī)	—	*Shāmśāstry's* identification with the country around Kāśī : The *Kāśīs* are people settled in the district around Vārāṇasī (*Rhys Davids*, 12).
30. Kāstīra rāṣtra.	Kāśmir (?)	*K* : 2.11.37	*Cp*. identifies it with *Kāśī*.	*Patānjālī* on Paṇiṇī 6.1. 154 takes it to be Vāhikā-grāma. (*V.S. Agrawal* : India as known to Paṇiṇī, etc. 65) *Cj* has Kancidesa, Kaṇkadiṣu (?) Parvate.
31. *Kukuras*	In Punjāb.	*K* : 11.1.5	*G.D.T.*, 390	A member of the Andhaka-Vrṣṇī league according to Mahābhārat.

1	2	3	4	5	6
32.	*Kurus*	In Meerut Dist. and Delhi Region.	*K* : 11.1.5	*Sircār* : 21	*Alī*, 174 "Brahmāvarta in Manusmriti, II. 17 to 2-3 *cf*. *Rhys Davids*, 14 : Pancālās to the East and Matsyas to the south.
33.	*Licchivikas*	In Vaiśālī on the left bank of R. Gandak.	*K* : 11.1.5	*Cunningham* : 445 *Alī* : 175.	According to *Rhys Davids* the Videhas of Mithilā and the licchavīs of Vaiśālī, the Vijjians.
34.	Madhyamarāṣtraka	In Kosala.	*S* : II. 11, p. 89 *K* : does not occur.	—	—
35.	Madhurā	Madhurā (in the north) and Madhurā (in the south).	*K* : 2.11.115	*Cb* : Capital of Pāndyas.	*Kāngle* observes that it refers to both *Madhurās*.
36.	*Madrakas*	In N.E. part of Punjāb or adjoining region.	*K* : 11.1.5	*Sircār* : 21.F.N.4. (Modern Monghyr) *Sircār* : 27.	Majha is a corrupt form of Madras.
37.	*Magadha*	Patnā and Gayā districts.	*K* : 2.11.107	*Sircār*, 22 *Rhys Davids*, 12, Monghyr on the East, Vindhya Plateau	Bounded on the East by the R. Son, on the North, by the Gangā, and Spurs of Vindhya

			forests on the south (*Alī* : 136).	Plateau, touching the Ganga near Monghyr on the East, and Vindhyan forests on the south.
38. Mahiṣa	Māhiṣmatī Mahiṣamandal (Northern part of Mysore State in the 5th cent.) Mahiṣas.	*K* : 2.11.115	*Sircār* : 191 *Cb* : Māhiṣmakam.	May refer to Māhiṣmati on the Narmadā (*Kāngle*, 105).
39. Mallakas	Malloi (?) on both banks of the Hydraotes (Old channel of the Jhelum).	*K* : 11.1.5	*Smith* : 94-7. Vy, *Mark*.	Sircār's identification with Mālvās (Malloi of Greeks) living on the Lower Irāvati (Rāvī) in the Punjāb in 4th Cent. B.C. But they are found settled in Rajputānā and ultimately they gave their name to modern Mālwā.
40. Mālā	Part of Malaya	*K* : 2.11.28 2.11.49	Also called Karṇīvana : *Cp*.	—
41. Nepāla	Nepāl	*K* : 2.11.100	—	—
42. Odra	Orissā	*K* : 2.11.92	Audrah : *Cp*. derives it from Udra in the sense	*Kāngle* : More likely contains a reference to the place of origin as in

1	2	3	4	5	6
				of Jalacar Prāṇiviśeṣaḥ. *Cj*, has Udradesajātāḥ.	other cases, perhaps.
43.	Pāñcālas	In North Pāñcāla : Rohilkhand division of U.P. South Pāñcāla : Farrukhābād district of the Gangā Basin.	*K* : 11.1.5	Land of Sursenas : (*Alī* : 61).	Between the R. Gangā and the R. Gogrā. (*Alī*. 170).
44.	Pāncanadas	Between Kuruksetra, Kālika kānan, the Sindhu and Himvat.	*K* : 2.3.16	*Cnn.*	in Mānasoliāsa of Someśvara (Dr. Sobhana Gokhale : Place-names in Mānasoliāsa and their Significance in Marāthī. Collection of Essays ed. by V.C. Bendre. Pāñcanadas includes, according to Gokhale Kālanjar, Kurukṣetra and Sindhusāgar.
45.	Pañchajana	Pañcanadas Preferred.	*K* : 2.2.16 (Pañcanadas)	*Sircār* : 44.	Area below the united flow of the five rivers in Sindha.

46. Pāndyakavāta.	Mt Malayakoti Negapatam/Ramnad, the port of embarkation for Ceylon.	*K* : 2.11.2 S : II-11, p. 86.	Sircār : 29 *Cb*; *Cp*. The river Pāśika more likely (*Trivedī*: Indian Culture I. 249-50).	—
47. Pāpeya	Uncertain	*K* : 2.30.29	—	Kāngle : p. 172 *F.N*. 29.
48. Pārasmudraka, (Translated by Kāngle, as 'From beyond the sea').	Island of Simhala.	*K* : 2.11.28	—	Shāmsāstry's identification : *cf*. *Palaesimundu* in Periplus Maris, Enythrasi (Majumdār, 1960, 370).
49. *Puṇḍras*	Western and Northern Bengal – Varendri lying in Gauḍa.	*K* : 2.11.103 2.11.106	*Sircār* : 114	—
50. Pūrṇakadvīpa.	In Kāmrūp	*K* : 2.11.65	*Commentators*.	—
51. Sabhā-rāṣtra	Vidarbha	*K* : 2.11.37	*Cj*.	*Cp*. reads Mahārāṣhtrakam, identifying with Āraṭṭa.
52. Śākala	Sialkot : Madra District around Sialkot, Capital of the Madras (Jārtikas and Bāhlikās).	*K* : 2.11.55	*Sircār*; 24, 38, 94, 105, 185, 187, 189.	On the R. Āpagā or Ayak Nadī (*Alī*. 174).

1	2	3	4	5	6
53.	Saurāṣṭras	Kāthiawād	*K* : 2.2.16 11.1.4	*Sircār* : 203.	Between Avantī, the Narmadā, Dvārkā and Arbuda (*Cnn*).
54.	Sauvīra	East of the Lower Indus included Multān in the north.	*K* : 2.30.29	*Sircār* : 24.	
55.	Śītodakā	Uncertain.	*K* : 2.11.53	*Cp* : A Country. *Cj* : A River.	
56.	Sindhu (Country and People).	West of the Lower Indus	*K* : 2.15.15 2.30.29	*Vy*, *Mts*, *Bmd*, *Mark*, *Vmn* and others.	Also Saindhava, *Sircār* : 106-7. Kāngle : 2.15.15: Indus-land.
57.	Srotasī	In the sea off the coast of Barbara or Parpara.	*K* : 2.11.2	Survarṇabhūmi : (land beyond the Bay of Bengal) *Commentators*.	Sircār : 66 for Suvārṇa-bhūmi.
58.	Surāṣṭras	the Saurāṣṭraka-vana lies between Avantī, the Narmadā, Dvārkā and Arbuda.	*K* : 2.2.16	*Cnn*.	
				—	—
59.	Survacala	—	*S* : II-15, p. 114 *K* : does not occur.		

60. Survarṇa-Kuḍya.	In Kāmrūp (Modern Āssām)	*K* : 2.11.64 2.11.104 2.11.107	*Cb* : A region in Kāśmir.	Kāngle's identification with Kāmrūp. The name changed subsequently to Karṇasuvarṇa, which includes Murshidābād and Rājmahāl in Bengal. The soil is red here like gold and hence the name (Harprasād Shāstrī JBORS, V, 1919, 318).
61. Svarṇabhūmi	Burma	*K* : 2.11.69	*C.S. Meyer.* Sumātrā (Meyer)	
62. Tajjamārāṣtra	Bhogavallī in the Kaliṅgas.	*K* : 2.11.37	*Cj* reading Tajjumā.	Gm read Madhyamrāṣtrakam, *that is*, the Kosalas (*Cp*, *Cs*).
63. Taitala.	Titala in Orissā.	*K* : 2.30.29	*Agrawāl, V.S.*	The Mahābhārat mentions (6.90.5) tiltiraja horses.
64. Vaivarṇaka *cf.* Vivarṇa	the Ocean near the island of Yavanas.	*K* : 2.11.42	*Cp.*	Off Coniyadeśa : *Cb*; According to Udaya Veer Sāstrī: near Greece, not possible since corals are found between 30°N 30°S.

1	2	3	4	5	6
65.	Vanāyu	Arabia Persia.	*K* : 2.30.29	the *Vacaspatya*; *N.N. Law*, K. Nag: Persia *Mallinatha* on Raghuvansa 5.73, *Halayadha* and *Meyer*.	It is doubted whether horses could be brought in the contemporary vessels from Arabia. (*G.D.T.*)
66.	Vanga Vangas (Kāngle ,120).	East Bengal.	*K* : 2.11.102 2.11.115	—	Dāccā : in Sircār, 169.
67.	Vatsas	Kosaumbī	*K* : 2.11.115	Near Allāhābād (*Sircār* : 22). *Cunningham* : 329.)	—
68.	Vivarṇa	See No. 64.			
69.	*Vṛijikas*	North of Patnā.	*K* : 11.1.5	G.D.T. : 390	Lichchhavīs, + Videhas of Mithilā + Tirabhuktīs of Tirhut (*Cunningham*. 445); if the Vijjians included eight confederate clans of whom Lichchavīs and Videhans were the most important. (*Rhys Davids*, 13).

MOUNTAINS/MOUNTAIN RANGES

Sr. No.	Name	Identificatian	Original Reference Kautilya Arthaśāstra	Reference in other works	Remarks
1	2	3	4	5	6
1.	Cakarvāla	Mythical Mountain.	*K* : 2.13.10	*Sircār* : 9	—
2.	Himavat	Himālaya	*K* : 2.11.2	—	Mentioned in connection with the account of pearls, suggesting the former bed of the sea.
3.	Kailāsa	Kailāsa	*K* : 14.3.23-24	—	—
4.	Kāla	In Malaya Region.	*K* : 2.11.51	—	—
5.	Kambu	Unidentified	*K* : 2.13.10	—	—
6.	Kośāgāra	*Ibid.*	*K* : 2.11.52	—	—
7.	Koṭi	Between Malaya and the sea.	*K* : 2.11.28	—	—
8.	Kūṭa	As above (?)		(*Cb*; *Cj*)	
9.	Mahendra	The Eastern Ghats	*K* : 2.11.2	Sircār : 54 *Alī* : 154	Hills of Bastar & Orissā
10.	Manimanta	In the Uttarpath.	*K* : 2.11.37	(*Cp*)	—
11.	Mālā	Part of Malaya	*K* : 2.11.28 *S* : II-11, p. 88	Also Karṇīvana (*Cp.*)	—

1	2	3	4	5	6
12.	Muleya (Mālā ?)	Unindentified.			
13.	Nāga	In Malaya Region.	*K* : 2.11.54	According to Kāngle : p. 101, *F.N.* 47.	—
14.	Pārasumdrakah.	Mt Rohaṇa in Ceylon.	S : II-11, p. 88 *K* : 2.11.28 (from beyond the sea).	Commentator quoted by Kāngle.	—
15.	Śatakumba	Unindentified	*K* : 2.13.3	River in *Meyer* quoted by Kāngle : p. 111, *F.N.* 3.	—
16.	Sātana	Unindentified	*K* : 2.11.43	*Cj* : from the Sātana Mt. *Cb* : from Sātana Country.	—
17.	Srīkantak	In Kāncīdesh	*K* : 2.11.37	*Cj.* :	Oldham's suggestion for search in the vicinity of Jabalpur district. (Kāngle : p. 100, *F.N.* 37).

18. Tṛṇasā	From the mountain on the bank of the river Tṛṇasa, Tṛsrnga ? (*Alī*, 75).	*K* : 2.11.45	*Cj.*	
19. Tuttha	—	*K* : 2.13.10	*Commentators*	A Mountain.
20. Vedokata	Unindentified	S : II-11, p. 88 *K* : does not occur.	—	—
21. Veṇu	Probably close to the source of the Veṇumatī R., Pannā (?)	*K* : 2.13.3	*Commentator's* version : river. *Meyer's* version : a river. (Kāngle : p. 111, *F.N.* 3).	The Veṇumatī is the name of Betwā in the Matsya Purāṇa (*Alī*, 117).

The mountains such as the Vindhya, the Vidura and that part of the Malaya which possesses the same characteristics as the Vindhya and Strirājya, are the sources of Vaidurya and other gems (Commentators) (Quoted by Shāmsāstry, 1915).

RIVERS AND OTHER WATER-BODIES

Sr. No.	Name	Identification	Original Reference in Kautilya Arthaśāstra	References in other works	Remarks
1	2	3	4	5	6
1.	Cūrṇā Cūrṇī	Near Muracī in Kerala (the Caurṇeya).	*K* : 2.11.2	*Cp*; : *Cb*. River Cūrnā near Kerala (*Cj*.)	—
2.	Gangā (Ganges)	Gangā	*K* : 4.3.12	—	—
3.	Hadra	Lake (?) Srīghanta in the sea of coast Barbara/ in the sea Parpara.	*K* : 2.11.2	*Cp*. *Cb*.	Kāngle refers it to Lake.
4.	Jambū	Near Mt. Meru	S : II-15. *K* : 2.13.3	Kāngle, p. 111, *F.N.* 2.	—
5.	Kardama	In Pārasīka In Conideśa in the Uttarapatha	S : II-11 *K* : 2.11.2	*Cp*. *Cb*. *C j*.	—
6.	Kāśī (Kā)	Same as for Mahendra Parvata river of the same name.	S : II-11, p. 93 *K* : 2.11.115	*Alī* : 125 (Based on the *Matysa-Puraṇa*)	—
7.	Kulā	Near Mayūrgrāma in Ceylon.	S : II-11 *K* : 2.11.2	*Cb*; *Cp*.	—
8.	Lauhityā	Brahmaputrā	*K* : 2.11.66	*Alī*, 113 & 115.	—

9. Pāśikā/ Pasikan	The Pāśikā in Pāṇḍya country.	*K* : 2.11.2	*C j.*	Seems more likely than near Pātalīputra (*Cb*, *Cp*).
10. Śitodakā	A river in Malaya Region.	*K* : 2.11.53	*C j.*	Also a Country.
11. Srotasī	On the shore of Barbara/ Papara.	*K* : 2.11.2	*Cp.* *Cb.*	
12. Tāmraparṇī	Tāmraparṇī (in the extreme south of India).	*K* : 2.11.2	*Alī* : 129 *Sircār* : 75 & 90.	Avantī extending from the Tāmraparṇī to the north side of some hills. This is unknown river (*Sircār* : 90).
13. Tāpī	Tāpī	*K* : 2.13.21	—	—

ABBREVIATIONS USED IN THE APPENDIX

1. *Bmd* : Brahmānda Purāṇa.
2. *Cb* : the Bhāsāvākhyāna, a commentary in Malayalam on Kauṭilīya Arthaśāstra.
3. *Cf.* : Compare.
4. *Cj* : A fragmentary Sanskrit commentary on Kauṭīlya Arthaśāstra.
5. *Cnn* : A small Sanskrit commentary called Nītinirṇīti on Kautīlya Arthaśāstra.
6. *Cp.* : Sanskrit commentary called Pratipadapañcika by Bhaṭṭaswāmin.
7. Cs : Śrīmūla, the Sanskrit commentary written by T. Gaṇapatī Śāstrī.
8. *F.N.* : Footnote
9. *G.D.T.* : G.D. Tāmaskar.
10. *Gm* : Palm leaf manuscript in Malayalam.
11. *K* : Kāngle, R.P.
12. *Mark* : Mārkaṇḍeya Purāṇa.
13. *Myt* : Matsya Purāṇa.
14. *S* : Shāmśāstry, R.
15. *Vy* : Vāyu Purāṇa.
16. *Vmn* : Vāman Purāṇa.

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5

Kautiliyan Concept of Territorial Sovereignty*

ABSTRACT

THE paper throws into bold relief the well-defined concept of territorial sovereignty which not only included a piece of inhabitated territory but also an organisation, exercising its functions, control and authority unfettered within and free from external control. Kautilya's Arthaśāstra embodies also the germs of territorial waters and economic and other inplications related thereto.

I. TERRITORY AND TERRITORIAL SOVEREIGNTY

The objective of this paper is to investigate the nature and kind of territory that could be reckoned by Kautilya to be the sovereign State. Merely populated territory could never claim the status of the State without being sovereign. *In other words*, any state worth the name should be unfettered by any other authority within its territory in the exercise of its power and functions and be free from external or foreign control and interference. According to Kautilya : "The King (Swāmī), the minister (Amātya), the country (Janpada), the fort (Durga), the treasury (Kośa), the army (Danda) and the ally (Mitra) are the constituent elements (of the State)" (*Kāngle*, 6.1.1.).

The above citation from the Kautilya Arthaśāstra is convincing evidence of the clear-cut notion of territorial sovereignty, formulated by its author. The term, *Janapada*, obviously, includes both country and people resident therein. The geographic attributes mentioned elsewhere pointedly refer to the territory and imperial realm. This closely conforms to the opening sentence of the Book Six, enumerating the constituent elements of the State (*prakriti sampadah*).

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* This is a part of Author's proposed major work on Kautiliyan Geo-Politics.

The proof of the term, *Janapada*, in the sence of territory or *rāṣtra* in Kautilya's writing, is offered by the duties of the Collector-General, who was directed to divide the *Janapada* into four districts. (*Samāhartā caturdhā Janapadam vibhajya*" (*Kāngle*, 2.35.1). In an earlier reference, Kautilya employs the term *rāṣtra* in relation to the same duties of the same high official in a categorical manner, suggestive of the *rāṣtra* as equivalent to *Janapada*. He states : "The Administrator should attend to (the collection of revenue from) forts, country parts, mines, irrigation works, forests, herds and trade-routes (as the main source of revenue)" (*Op. cit.*, 2.6.1).

Again, Kautilya emphises the term in the sence of imperial territory or *rāṣtra* when he says : "On all the four quarters of the boundaries of the kingdom, defensive fortifications, against an enemy in war, shall be constructed on grounds naturally best fitted for the purpose" (*Op. cit.*, 2.3.1). In the same vein, he adds : "among them a river fort and a mountain fort are places for protectors of the country, a desert fort and a jungle fort are places for foresters or places of retreat in times of calamity (*Op. cit.*, 2.3.2).

Any territory without population cannot serve to constitute territory in the real-world situation. This lends support to the hypothesis posed earlier that the term, *Janapada* is connotive of both the territory as well as the people.

While dwelling on the spatial limits of the imperial sovereignty, it may be mentioned that "Country (Space) means the earth" (*Op. cit.*, 9.1.17-18). In it, "the emperor should start work that would augment his strength" (*Op. cit.*, 9.1.20).

We obtain a well-defined concept of territory, bounded on the north by the Himālayas and on the south by the ocean constituting a *rājya* or imperial territory, but it also contains pointed reference to the nature of the space which should contribute to the might and prosperity of the imperial monarch. In the light of several statements embodied in Kautilya's Arthaśāstra, there can be hardly any hesitation to contend that Kautilya could not define a *rājya*. In regard to the conceptual construct of territorial sovereignty, Kautilya had doubtlessly made an advance on that of Manu and earlier writers (*Saletore*, 1963).

It is interesting to note that the contemporary Greek writer, Arrian observes, "This same Megasthenes then informs us that the Indians neither invade other men, nor do other men invade India" (*Mecrindle*, 1960). *In other words*, the Indians entertained a scrupulous respect for territorial inviolability of neighbouring Kingdoms or political entities and also did not permit the latter to violate the sanctity of their own territory. To all intents and purpose, the Indians had sadulously adhered to a policy of self-containment.

Though the concept of 'territorial' sovereignty on land had been recognised, its dimensional extension into territorial waters of state remained vaguely realised. However, the Kautilya's Arthaśāstra contains the germs of the concept of territorial waters in the statement : the Controller of shipping "should demand duty from *ships sailing on sea when they come within the domain*" (*Kāngle* : 1.28.11). Nowhere do we come across any precise delimitation of "the domain". The control of the coastal regions and territorial waters had to be undertaken for security measures, for checking smuggling of contraband goods and commodities, curbing piracy and collection of revenue from relative sources. One cannot disagree with Dr. Saletore's observation, *namely*, "it is difficult to come across in ancient texts a more complete and comprehensive definition of territory than the one given by Kautilya" (*Saletore*, 1963).

In concluding the Kautiliyan concept of territorial soverignty, it can be safely said that the organisation of space not only covered the land but extended into coastal regions and territorial waters. From the geo-political standpoint, this organisation of space has a valuable and meaningful significance, which finds its expression in internal inter-state, and international interactions and relations.

II. POPULATION

The term, *Janapada* has been interpreted to include not only territory but also people or population (*Kāngle*, 6.1.1), as already indicated above (*Saletore*, 1963). This has a very precise conceptual connotation in the statement, *namely*, the land "with the support of men is preferable" (in Shāmśāstry : the land "which is thickly populated is a kingdom in all its sense" (Bk. VII, ch.2, p. 364). Without men, like a barren cow, what could it yield? (*Kāngle*, 7.11.23-25).

III. ORGANISATION AND SOVEREIGNTY

For the sake of convenience, we may adopt the modern elements of sovereignty in dealineating the structure of Kautilya's State, *namely*, territory, people, organization (government) and sovereignty. The Kautiliyan elements of sovereignty, *namely*, the monarch, minister, fort and treasury can be encompassed by the modern term, 'organisation or government' and 'ally' may be interpreted to be friendly neighbouring states, without any intention or capacity for interference with the internal operations of state policy or policies in an imperial domain.

Having noted above the two essential elements of the state, *namely*, territory and population, its two other inalienable elements remain to be discussed, *namely*, Organisation and Sovereignty. The Kautilya's Arthaśāstra definitely propounded the monarchical form of Organization, in preference to tribal republics "which became henceforth much rarer than before and practically died out in the course of the next few centuries" (*Śāstrī*, 1952). The imperial ruler was unfettered in the exercise of his power and authority, except by discretionary acceptance of advice, tendered by his council of ministers. Forts and fortifications, army and treasury at the command of the imperial ruler were helpful aids in the exercise of his power and authority within his imperial territory and securing freedom from external control or foreign interference.

Having given a brief definition of the territorial sovereignty, we may, now, pass on to the policy implications of governmental actions, and their effects on the landscape and socio-economic conditions of the people.

The territorial waters have direct bearing on (1) the security, safeguard and protection of coasts and coastal installations, establishments, and shipping of the imperial state, (2) extraction of marine resources, (3) sources of revenue to the State Exchequer, and (4) prevention of renegades from the legal system of the country or from without.

For the sake of security, it was enjoined : "Persons from foreign lands may enter when permission to enter is granted or on the testimony of the caravan. He (the Controller of shipping) should cause to arrest a person carrying off the wife, the daughter or the property of another, a person who is brightened or agitated, a person hiding (his face) by a load on the head containing heavy goods, a wandering monk who has just put on the marks or who is without the marks, a person whose illness cannot be seen, a person showing a changed appearance because of fear, a person secretly carrying goods of high value, letters, weapons or means of fire, a person with poison in hand, a person who has travelled a long distance and a person without a sealed pass" (*Op. cit.*, 2.28.19-28). All these regulations aimed at the restricted entry of foreigners, the prevention of escape of outlaws and suspected individuals in the larger interests of the State.

In order to curb piracy, Kautilya had ordained the capture of piratical vessels (*himsrikāh*) in the following sentence : "He should destroy (boats) that cause harm, also those coming over from the enemy's territory and those violating the regulations of the port" (*Op. cit.*, 2.28.12).

The enemy character of vessels could be detected and determined by their destinations. Whether they belonged to friendly or neutural states, if they were intended to afford help to the enemy they could be seized. The Superintendent of Harbours exercised the right to stop or detain merchantmen as well as enemy vessels to inspect, if these or the cargo they carried were contraband. This action is the counterpart of the modern practice of 'right to search'.

"What we know of the Malabār coast", writes Vishwanātha, "from the Greek writers and from Tradition, bears out what we have just cited from the Sanskrit sources. Pliny notes that the seas were infested with pirates, and Ptolemy describes the Ariake Andron Peiration as extending from Nitrias which Pliny places near Cranganore, as far north as Mandagara in the Ganarese country. This part of the coast comprises what is known as Yavanavalanada in Sangam texts, of which Elimala in North Malabār was the capital. The custom of the country was that all ships bound for the place should be treated with due consideration and should not be made to suffer in any way. It is interesting that such humane principles were in force even in a country professedly the stronghold of piracy. The pirates seem to have taken inhuman advantage of the troubles of vessels not destined for their country, but driven ashore by stress of weather" (*Vishvanath*, 1925).

The unfettered flow of foreign commodities was forbidden by law and a higher rate of toll than that on indigeneous goods was levied particularly in case of imported salt, as a protection against unhealthy competition, arising out of the latter, though foreign traders were encouraged to establish commercial relations with the empire and home-made goods were exported to foreign countries (*Kāngle*, 2.12.19). The taking out any of the unexportable (*contraband*) articles from the country, *namely*, weapons, armours, coats of mail, metals, chariots, jewels, grains and cattle was banned with visitation of punishment for its violation (*Op. cit.*, 2.21-22). Similarly, harmful and worthless goods were not allowed to enter into the domain (*Op. cit.*, 2.21.32).

Secondly, the resources from the sea included salt-making (*Op. cit.*, 2.12.28), fish-catching, fishing of pearls, corals and conch-shells (*Op. cit.*, 2.12.27).

Thirdly, the sources of revenue from coastal regions were taxes on fishing villages, rent for hired boats by fishermen and others, tax on home-made and imported salt, lease rent (for salt pans), inspection fee, surcharge from sale of salt and also manufacturing fee (*Op. cit.*, 2.28.2-5).

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6

Kautilya's Theory of Inter-State and International Geo-Politics*

ABSTRACT

At the outset an accent is laid on the significance of areal extent of imperial territory, scientific frontiers, territorial inviolability of vicinal states, the stages of states, *namely*, deterioration, stagnation, and progress, and formulation of implications and effects of *six-fold* policy. Kautilya has undertaken a brilliant exposition of the theory of a circle of states (*Rājmaṇḍal*), while propounding that neighbouring states are mutual enemies. It is of absorbing interest that Kautilya has emphasised that "if the advantages from peace and war are weighed to be equal, peace is to be preferred", and diplomatic ways have been considered helpful in the solution of outstanding disputes among states. The nature of vexations, categories of peace and their intents and purposes have been also spot-lighted.

Having already contributed a paper on "SOME GEO-POLITICAL CONCEPTS OF KAUTILYA", (Tāmaskar, 1965-66) I, now, venture to present a systematic and critical exposition of Kautilya's principles of inter-state and international relations and affairs exclusively in the present paper in the light of proper historical perspective, keeping in view the contemporary political conditions and structures.

Kautilya's Arthaśāstra is a champion of the imperial cause of the Mauryan Emperor, Candragupta (*Smith*, 1914).[1] According to this treatise, "the region of the sovereign ruler extends northward between the Himavat and the sea, a thousand *Yojanas* (7250 kms.) in extent across" (*Kāngle*, 9.1.18)[2]. It is worthy of note that concept of Imperialism in the ancient Indian Historical traditions did not transcend the limits of *Bhāratvarṣa* or India which is supported by a statement of Arrian that "a sence of justice, they say, prevented a king from attempting conquest beyond the limits of India". (Majumdār, 1960). It may be pointed out, at the outset, that Kautilya was actuated by laudable, lofty and high ideals of the unification of India, by weeding out incessantly warring states, engaged in dissipating their own energies within the country and setting up an all-embracing State to ward off foreign invasions and attacks within it and securing the cohesion of the Indian people within the Mauryan Empire. It has been rightly observed : "The first Indian Emperor, more than two thousand years ago, thus entered into possession of that 'scientific frontier', sighed for in vain by his English successors and never held in its entirety by the Moghul monarchs of the sixteenth and seventeenth centuries". (*Smith*, 1914).

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It follows from this that Kautilya had been earnestly anxious to preserve the continued and indivisible existence of the territorial sovereignty of the Mauryan Empire by *all means available*, in the interest of the welfare and well-being of the Indian people, without casting greedy eyes on the territories beyond the Indian frontiers. The contemporary international relations, as propounded by Kautilya, have to be viewed, examined and analysed in the context of his implicit and expressed benevolent ideals and designs of the imperialistic State.

The successful attainment of objectives by any State, points out Kautilya, is dependent on two factors : peace and activity (*Kāngle* : 6.2.2)[3]. "Peace and activity constitute the source of acquisition and security" (*Ibid.*, 6.2.1). The obstacles in the maintenance of peace and activity arise from two sources : internal and external. Kautilya has not explicity enumerated the obstacles in the light of this logical classification, though he has given penetrating thought to them at length in his treatise. The internal troubles arise from small causes and sources in the normal daily administrative routine. However, for external affairs, specific policy and remedies are imperative and essential. This necessitates the pursuit of inter-state and international relations in deference to a well-chosen policy to suit the exigencies of the time and space.

He, then, proceeds to enumerate *three* aspects of the position or stages of states : deterioration, stagnation and progress. "(Acts) of human agency are good policy and bad policy; of divine agency good fortune and misfortune. For it is acts of human and divine agency that make the world go. That caused by an unseen agency is the divine (act)" (*Ibid.*, 6.2.6-8). Since the human causes can be controlled, efforts can be concentrated on them. Kautilya's *six-fold* policy aims at counteracting the internal as well as external troubles of the State. He confidently believes that by means of a wise and proper policy human efforts can be successful. Any king, endowed with personal excellences and those of his material contituents, the seat of *good policy, good character and of best-fitted elements of the State*, is the *would-be* conqueror (*Ibid.*, 6.2.13).

Just as Hobbes could not think of natural causes of even temporary peace and order in the State, similarly, Kautilya could not envisage the peaceful existence of neighbouring states. Partially, the views of these authors are right, but not in their entirety. In this very context, Kautilya makes a cogent analysis of the impact of vicinal location of states, arising from their geographical contiguity and remoteness. Consequently, "Encircling him on all sides, with territory immediately next to his, is the the constituent called the enemy" (*Ibid.*, 6.2.14). However, it cannot always be true to presume that two neighbouring states cannot subsist with cordial, co-operative and friendly relations, under the conditions of amity and mutual inviolability of each other's territory. But Kautilya had been inspired by the zeal for the unification of India under one paramount State in the period of numerous warring and rival states, intent upon devouring each other's territory at any opportune time. Naturally, guided by the instinct of self-preservation, peripheral state would be involved in the struggle against the on-rolling tide of any *would-be* conqueror, aiming at the paramountcy in the country. "A neighbouring prince possessed of the excellences of an enemy is the foe; one in calamity is vulnerable; one without support is fit to be exterminated; and when in the reverse case, fit to be harassed or weakened" (*Ibid.*, 6.2.16).

On the basis of the evaluation of political attitudes, states, on the periphery and beyond it, have been conceived as geo-political zone of enemy, friend, enemy's friend, friend's friend, friend of enemy's friend with the increasing distance. It is interesting to note that Kautilya maintains that a traditional ally close to the territory of the *would-be* conqueror may be deemed to be a natural ally, while he whose friendship is sought for "shelter or wealth is the ally made (for the time being)" (*Ibid.*, 6.2.20). This statement poses the problem : how the first category of state can be a friend of the *would-be* conqueror in the real sense of the term. Further he adds that "One outside (the sphere of) the enemy, the conqueror and the middle king stronger than (their) constituents, capable of helping the enemy, the conqueror and the middle king when they are united or disunited and of suppressing them when they are disunited is the neutral king (*Ibid.*, 6.2.22)". Because of the geographical discontiguity and prevalent political circumstances such a state can afford to assume an indifferent or neutral attitude towards warring states. All these categories of state, according to Kautilya, fall within the purview of his formulated *six-fold* policy : the conqueror, the ally and the ally's ally are *three primary* constituents of this circle of kings (*Rāj-maṇḍala*)" (*Ibid.*, 6.2.24) with the *would-be* conqueror forming the centre of gravity of a *Rāj-mandala* or geo-political sphere. This pattern of states recalls a prototype of modern coalitions or *ententes*. The *Rāj-maṇḍala* constituted logically four primary 'natural circles'. This necessitates the pursuit of and resort to *six-fold* policy.

The *six-fold* policy resolves itself into *six* distinct modes : (1) Peace (agreement with pledges), (2) War (offensive operations), (3) Marching (making preparations for war), (4) Staying quiet (neutrality), (5) Seeking shelter and (6) dual policy (*Ibid.*, 7.1.2). According to Kautilya, Vātavyādhi holds that there are two commonly accepted categories of policy, *namely*, peace and war, inasmuch as six forms result from these two primary forms of policy (*Ibid.*, 7.1.2). In modern times, normally, these two international situations are recognised, excluding the *cold* war. Kautilya contends that the six situations are mutually exclusive and distinct which result in the *six-fold* policy, as formulated by him (*Ibid.*, 7.1.5).

"When in decline as compared to the enemy, he should make peace. When prospering, he should make war. (When he thinks) 'The enemy is not able to do harm to me, nor I to him', he should stay quiet. When possessed of a preponderance of excellent qualities, he should march. Depleted in power, he should seek shelter. In a work that can be achieved with the help of an associate, he should resort to a dual policy" (*Ibid.*, 7.1.13-18). "Of them, he should follow that policy by resorting to which he may be able to see, 'By resorting to this, I shall be able to promote my undertakings concerning forts, waterworks, trade-routes; settling on waste land, mines, material forests and elephant forests, and to injure these undertakings of the enemy'. That is advancement. Perceiving 'My advancement will be quicker or greater or leading to a greater advancement in the future the reverse (will be) that of the enemy, he should remain indifferent which causes him the loss to the enemy's advancement. In case the advancement takes the same time or bears an equal fruit (for both, he should make peace). He should not follow that policy by resorting to which he were to see the ruin of his own undertakings, not of (those of) the other (Party). This is decline'. Perceiving 'I shall decline after a longer time or to a lesser extent or in such a way that I shall make a greater advancement, the enemy (will decline) in the reverse manner he should remain indifferent to his decline. In case the decline lasts for the same run greater than his enemy's may neglect his period or leads to equal results (for both), he should make peace......' (*Ibid.*, 7.1.26-27). "In case the stable condition lasts for the same period or leads to equal consequences (for both), he should make peace" (*Ibid.*, 7.1.30). Or, if he were to see 'Remaining at peace, I shall ruin the enemy's undertakings by my own undertakings bearing abundant fruits; or, I shall enjoy my own undertakings bearing abundant fruits or the undertakings of the enemy; or by creating confidence by means of peace, I shall ruin the enemy's undertakings by the employment of secret remedies and occult practices; or I shall easily entice away the persons capable of carrying out the enemy's undertakings by (offering) a greater remuneration from my own undertakings, with facilities of favours and exemptions; or, the enemy, in alliance with an extremely strong king, will suffer the ruin of his own undertakings, or, I shall keep prolonged his war with the king being at war with whom he is making peace with me, or, he will harass the country of the king, who is in alliance with me (but is) hostile to me; or, his country, laid waste by his enemy, will come to me, so that I shall achieve advancement in my undertakings; or, the enemy, with his undertakings ruined (and himself) places in a difficult situation, would not attack my underkings; or with my undertakings started elsewhere, I shall achieve advancement in my undertakings, being in alliance with both; or, by making peace with the enemy I shall divide from him the circle (of kings) which is attached to the enemy, (and) when divided, I shall secure it (for myself); or, by giving support to the enemy by favouring him with troops when he seeks to seize the circle, I shall create hostility towards him, (and), when he faces hostility I shall get him destroyed by that (circle)', he should secure advancements through peace" (*Ibid.*, 7.1.32).

But, if any king, intent on conquest, thinks that his country "Consisting mostly of martial people or fighting bands or secure in the protection of a single entrance through a mountain-fort, a forest-fort or river-fort, will be able to repulse the enemy's attack, or taking shelter in an impregnable fort on the border of my territory, I shall be able to ruin the enemy's undertakings; or, the enemy, with his energy, sapped by troubles caused own by a calamity, has reached a time when his undertakings face ruin, or, when he is fighting elsewhere, I shall be able to carry off his country, he should secure advancement by resorting to war" (*Ibid.*, 7.1.33).

> "Or, if he were to think, 'The enemy is not able to ruin my undertakings nor am I able to ruin his undertakings; or, (when) he is in calamity or (engaged) as in a conflict between a hound and a boar, I shall advance (myself), being intent on carrying out my

own undertakings', he should secure advancement by stayings quiet." (*Ibid.*, 7.1.34).

The following inferences stem from the enumeration of the *six-fold* policy :

1. Kautilya was an avowed votary of the creation and maintenance of balance of power among states by means of alliances, threats of invasion and destruction of productive works.
2. He insisted on the establishment of peace, deemed essential for an uninterrupted 'activity or progress'. If there is equal advancement in peace or war, he should resort to peace. For in war there are losses, expenses, marches away from home and hindrances. (*Ibid.*, 7.2.1-2).[5]
3. He exhibited his faith in only restricted degree of co-operation among states, in view of his prescription of deliberate, intentional, open or clandestine obstacles and hindrances to obstruct the enemy power from becoming strong, progressive and prosperous.

Further, Kautilya avers that when a state of equal power is not peaceful, the same amount of vexation as his opponent has received at his hands should be given to it in return. "For, heat is the means of joining together. Metal that is not heated does not become joined with metal" (*Ibid.*, 7.3.8). The previous world wars were fought under the apparent disguise of lofty ideals for ending wars, establishment of lasting peace and making the world safe for democracy. Evidently, these declared objectives did not hold out a promise of the intended overlasting peace and democratic ideals. On the contrary, the uneasy peace, following in the wake of deadly wars, sowed more fruitful seeds of discord than ever before. It cannot be claimed that the cessation of hostilities can bring about a lasting peace, without mutual forgetfulness and forgiveness in respect of the past attitudes and behaviours of states. In deference to this, Kautilya enshrines his far-reaching wisdom and sound advice in the following passage :

> "If the weaker were to remain submissive in all respects, he should make peace with him. For, heroism born of grief and resentment, makes one fight bravely like a forest fire. And he becomes the object of favour of the circle (of kings)" (*Ibid.*, 7.3.10-12).

In a nutshell, well-calculated wisdom constitutes the guideline for the right action in consideration of space and time. He further pleads that if any over-bearing attitude of any state creates troubles, it should be made to taste fruits of its actions and rendered submissive. When it keeps up its submissive attitude, the resort to continual troubles to it is reckoned to be impolicy.

Sometimes, it may become imperative to increase the population of one's state. The simple remedy suggested for this is to offer inducement to peoples of other states to immigrate and settle into his own state. Possibly, good persons are not likely to leave their own country but greedy, poor or oppressed persons may accept this alluring bait. If they also decline this inducement, the *would-be* conqueror should resort to war. Despite this also, if the people are unwilling to migrate, then peace may be contracted. If coercive measures fail to fulfil the intended objective, the troubles and pains of war are to be avoided. "Even in case of simultaneity of calamities, if he were to see, 'I am in a greater calamity; the enemy, in a lighter calamity, will easily overcome his own calamity, and attack (me)'; even the stronger should make peace" (*Ibid.*, 7.3.15).

With differing expendiency of the time and place, there can be a variety of peace as follows :

1. The abject surrender with a fixed number of troops or flower of one's army (*ātmamiṣa*).
2. The surrender of the commander of the army together with the heir-apparent (treaty by impersonation or (*puruṣāntarsandhi*).
3. The march of the king or some one else to an appointed place (impersonal treaty), giving safety to the king and chiefs of army.
4. The offer of wealth (treaty by purchase price : *Parikraya*) which may be small subsidy (*upgraha*) or tolerable, or immense (*kapāla*), that is, paying through the nose (*Ibid.*, 7.3.22-28).

   These alternatives are preferred to the peace by keeping a high-born woman as hostages for honouring an agreement.

   When the parties to the treaty are amicably united, it is termed as 'golden peace' (*suvarṇa-sandhi*). In regard to the fourth category of peace, the supply of raw materials, elephants and horses as well as troops may be stipulated and, alternatively money and lastly, the evasion of payment under the plea of loss of results may be anticipated and contemplated.
5. The cession of stipulated territory (*ādiṣta-sandhi*) with a view to the elimination of lurking thieves and wicked persons.
6. The retrocession of all the territory with the exception of the capital (*uchhinna-sandhi*) calculated to keep the enemy involved in internal troubles in the occupied territory.
7. The payment of the produce of the land (*avakraya*).
8. The payment of more than the land yields (*parī-dūṣaṇa*).

Kautilya prefers the cession of territory, asserting that the two based on the payment of the produce should be made only when one is obliged to submit to power (*Ibid.*, 7.3.35).

The above are the sub-classification of self-surrender, surrender of army, offer of wealth and land or territory. Elsewhere also, Kautilya alludes to several other forms of peace treaties, *e.g.*, with or without stipulations and (*aparipaṇita*) (*Ibid.*, 9.6.14).

The further classification of peace embraces (1) with no specific end (*akritachīkirṣa*), (2) peace with binding terms (*kritasleṣana*), (3) the breaking of peace (*kritaviduṣaṇa*), and (4) the restoration of broken peace (*apaṣirṇakriyā*).

> "The examination of a new treaty in relation to conciliation and other means with their consequences, and the fixing of equal, weaker and stronger kings according to their strength is their respective desire to make a (treaty) not made" (*Ibid.*, 7.6.19).
>
> "The observance, on both sides, of a treaty made, by means of what is agreeable and beneficial and the carrying out of conditions as agreed upon and their safeguarding (by seeing) that he may be divided from the other party, is clinging fast to a treaty made" (*Ibid.*, 7.6.20).
>
> "Violation (of the treaty) after establishing that the enemy deserves to have the treaty with him broken, by cheating (him) through treasonable persons, is spoiling a treaty made. Becoming reconciled with a servant or an ally who had deserted through some fault is repair of what is broken" (*Ibid.*, 7.6.19-22).

In a nutshell, the Kautilyan foreign policy is epitomised in the formula of *ṣadguṇya* or *six-fold* measures. The formula has a close bearing on, though it does not presuppose, the theory of *rāj-maṇḍal*, or circle of kings. This maṇdala is perceived to consist of twelve kings or states (*Ibid.*, 6.2.13-28). This preception is slightly modified by two standpoints presented in the text of the treatise.

In conformity with one view of *rāj-maṇḍal*, the twelve kings are depicted in Fig. 6.1(a) (*Kāngle*, 6.2.13-22) and the other view of the four perincipal states is inserted in Fig. 6.1(b).

According to the second view, each of the *vijigīṣu* the *ari*, the *madhyama* and the *udāsīna* has a *mitra* (ally) and a *mitra-mitra*, ally's ally with an aggregate of twelve kings. According to this view, each of the four kings with his two allies constitutes a subsidiary *maṇḍala* or circle, of which there are four in all (6.2.24-27). It has been pointed out that the passage implies the existence of forty-eight states, twelves to each of the four, *vijigīṣu*, *ari*. *madhyama* and *udāsīn* (*W. Reuben*, 1955). This appears to be evidently mis-interpretation of the text.

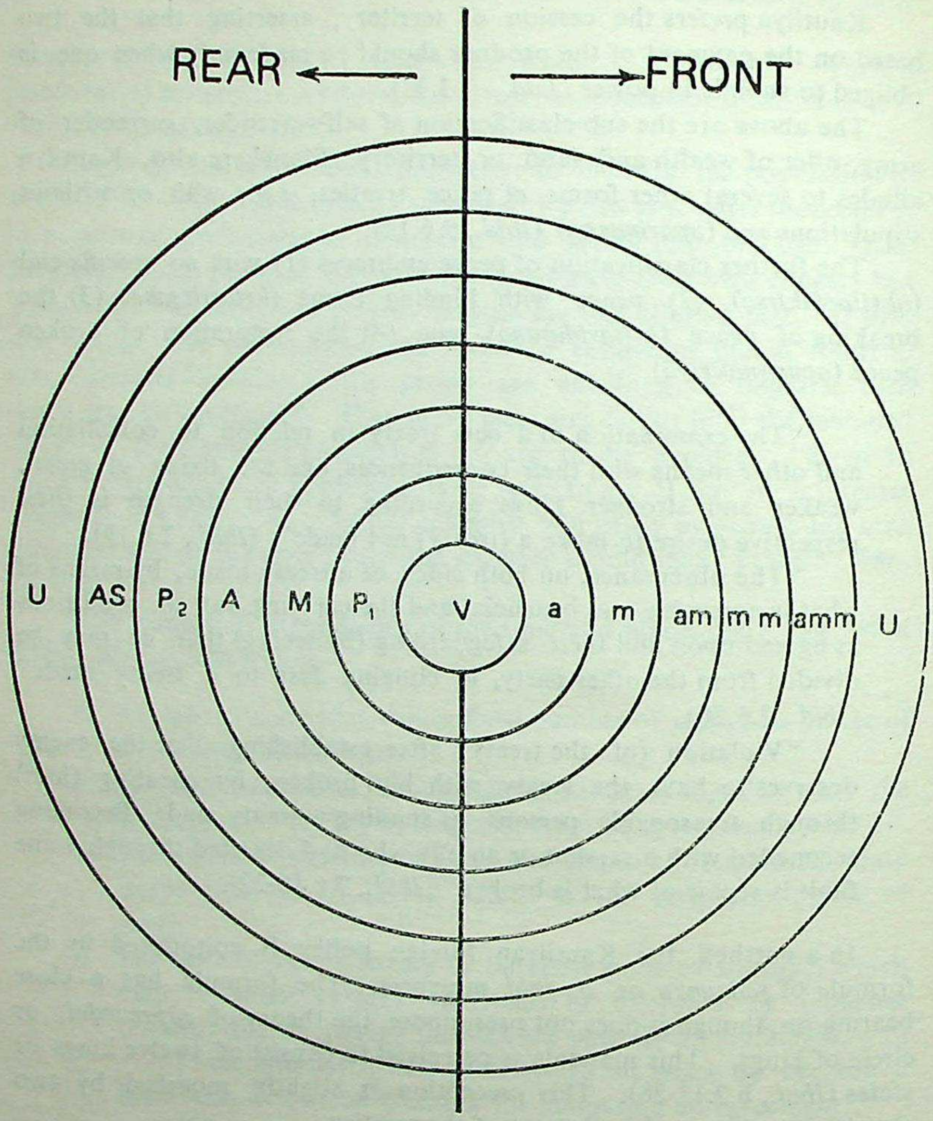
REAR
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FIG. 6.1(a) : *Simplified View of Rājmandal*

V : Vijigīṣu ; a : ari ; m : mitra, am : arimitra ;
mm : mitramitra : amm : arimitramitra : P_1 : pārṣṇigrāha ;
M : Madhyam ; A : ākranda : P_2 : pārṣṇigrāhāsāra ;
AS : ākrandāsāra ; U : Udāsīn.

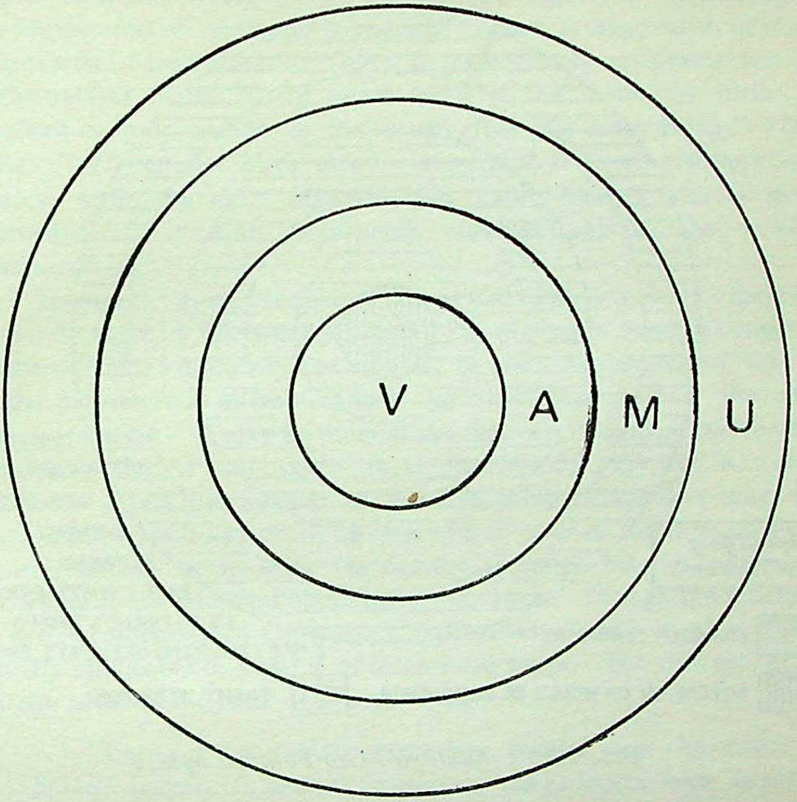

FIG. 6.1(b) : *Complex View of Rajmandal*

V : Vijigīṣu ; A : Ari ; M : Madhyam ; U : Udāsīna
(would-be (enemy) (Middle) (Neutral)
Conqueror)

The *pārṣṇīgrāha* and *ākranda* in the first view are only the *ari* and the *mitra*, in a specific situation, (*Kāngle*, 1965). When the *vijigiṣu* contemplates to march in a particular direction, the enemy in the rear becomes '*pārṣṇīgrāha*' (heel-catcher) and the ally in the rear *ākranda* (who cries out), when proceeding to help. Two *āsāras* are only the *arimitra* and the *mitramitra* in the rear, respectively. "All these are elastic terms" (*Ibid.*). The same ruler may become a *parṣṇīgrāha* or an *ari* or a *mitra* or even a *vijigīṣu* in changed circumstances.

The generalised diposition of enemies and friends, interposed in between, may be visualised in Figure 6.2.

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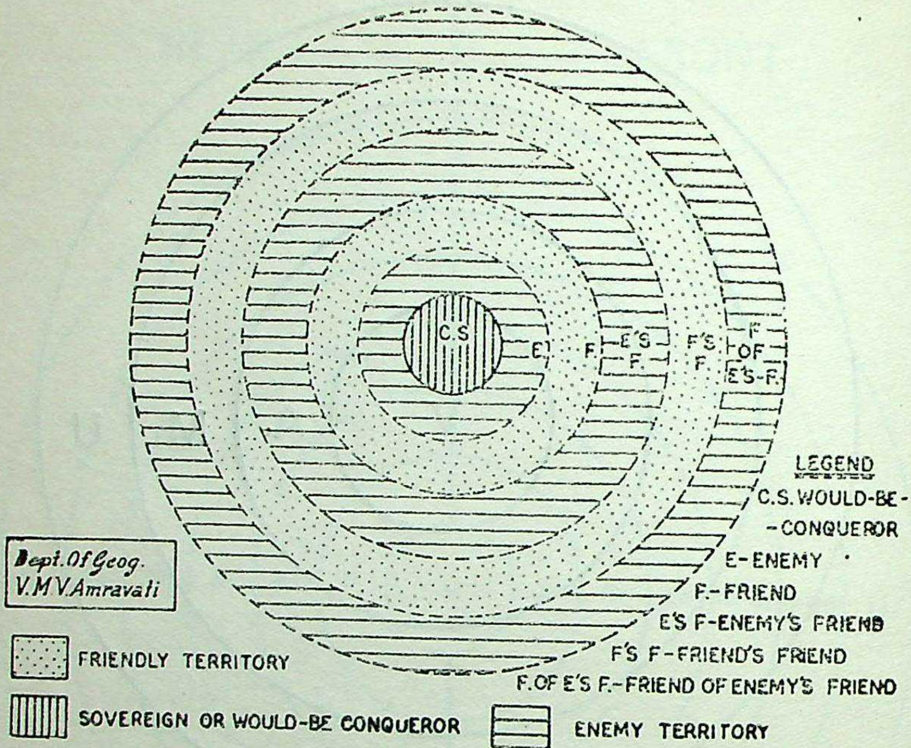
C.S
E.
F.
E'S F.
F'S F.
F OF E'S-F.
LEGEND
C.S. WOULD-BE-CONQUEROR
E-ENEMY
F.-FRIEND
E'S F-ENEMY'S FRIEND
F'S F-FRIEND'S FRIEND
F.OF E'S F.-FRIEND OF ENEMY'S FRIEND
Dept. Of Geog.
V.M.V.Amravati
FRIENDLY TERRITORY
SOVEREIGN OR WOULD-BE CONQUEROR
ENEMY TERRITORY

FIG. 6.2 : : *Kautilya's Geo-Political Sphere*

An interpretative analysis of the above diagram serves to reveal that the interposed zones, *namely*, E., F., E's F, F's F., F of E's F., and so on, would be respective enemy territories between the State intent on imperialistic ambitions and its immediate peripheral enemy and the imperial State's friend, friend's friend, the enemy's friend and the friend of the enemy's friend further beyond the friend's friend, and so on. This inferred concentric pattern of alternating enemy and friendly zones does not evidently correspond to the subsequent delineation of the nature and political outlook of states described by Kautilya. Obviously, the character of political attitudes in existence among states introduces modification in their idealised arrangement of alternative zones of enemy and friend.

The hypothesis of the alternate areal distribution of enemy and friendly states gives an apparent impression, according to the prescribed dictum, of linear disposition of the states. The implication of rear and front, likewise in reference to the location of the *would-be* conqueror, cannot be clearly visualised and understood. Again, as inferred above, the implication of 'rearward' friend and enemy is suggestive of linear disposition of such states. "One with immediately proximate territory is the natural enemy; one of equal birth is the enemy by birth; one opposed or in opposition is the enemy (for the time being)" (*Ibid.*, 6.2.19). The epithet 'birth' may be interpreted as sworn and impeccable enemy, while the other may imply a casual enemy who is *merely* interested in creating occasional troubles against the *would-be* conqueror.

Apparently, except for the *madhyam* and *udāsīn* rulers, others are normally more or less equal in power. The *rājmaṇḍal* forms a conglomeration of states loosely divided into two or more hostile camps, with the leader of one group attempting to set up his hegemony over the entire conglomeration. It may be pointed out that the number twelve does not convey that so many states are absolutely necessary for a *maṇḍal.* This implies that the number of possible relationships that may arise when a state tries to establish its supremacy over a number of neighbouring states. In actuality, the number of states may be less or more according to the situation obtaining at the time. Though the scheme in its origin contemplated states of a comparatively small in size, this is equally applicable to a group of large-sized states. The concept of the *vijigīṣu* involves the ideal of a large state.

> "Each of the twelve states has besides two the ruler, five *prakiṭis* (elements), *amātya* (minister), *durga* (fort), *koṣa* (treasury) and *danda* (army) which are called *dravyaprakṛtis*. The *rājmaṇḍal* thus has twelve kings, *rājaprakṛtis,* and sixty *dravyaprakṛtis,* that is, seventy-two *prakṛtis,* in all. Such is the theory" (*Ibid.*, 6.2.28).

The Fig. 6.2 incorporated in the text does not hold out the origin of the doctrine of *maṇḍal,* stemming from the growth of the power of Magadha (*Cf. Reuben,* 1955). It is contended that the theory of the *rājmaṇḍal* may well have been in existence at the time without Nandas having its cognitive perception in following its tenents in their programme of conquests. It cannot be denied that in the last analysis the theory is based on the basic realities of inter-state relations (*Kāngle,* 1965).

The neighbouring vassals, *sāmants,* may be regarded as hostile. But it is possible to have a friendly feeling towards *vijigīṣu*, while others may even be *subservient* to him. Neighbouring state, according to Kautilyan view, may be classed into three groups, aribhāvin (hostile disposition), mitrabhāvin (friendly disposition) and bhrtyabhāvin (dependent's feeling) (7.18.29).

Kautilya has elaborated other relevant considerations bearing on the *six-fold* policy, corresponding to perfidious and treacherous means, tactics, moves, plots and counterplots (*Ibid.*, 7.6.24-38), which cannot fall rightly within the range of Political Geography proper. The categories and sub-categories of peace, enumerated by Kautilya, fall short of modern requirements of complex world political structure. The permutations and combinations of objectives and ends of peace can be so numerous as to defy its valid classification. Kautilya's Arthaśāstra makes a repeated mention of losses caused by warfare. In pursuit of political or 'diplomatic' policy, however, he has set aside all considerations of morality and advocates the use of every insidious and treacherous means, including every form of secret assissination (*Smith*, 1914)[7].

Kautilya was not merely a political theorist or visionary but also a practical diplomat, astute statesman and wise politician of unsurpassed abilities, as can be evidenced from the ancient Indian historical traditions, embodied in the famous drama, *Mudrā-Rākshasa* (*Pandit*, 1944), protraying the successful moves and measures of absorbing interest against plots and counterplots of equally brilliant opponent, Rāksasa, prime minister of the last Nanda ruler who was finally supplanted by Candragupta Maurya as the imperial ruler of India. The drama offers a concrete illustration of the creation of a *Rāj-maṇḍal* (circle of friendly states of the *would-be* conqueror) or *entente* in favour of the rising imperial power in India, ranged against the circle of the enemy's friends depicted on the Fig. 6.3. It may be noted with keen interest that in the final determined opposition and resistance, Kautilya succeeded triumphantly in unnerving the formidable and menacing allies against Candragupta Maurya by causing mutual suspicions and doubts in their ranks and files.

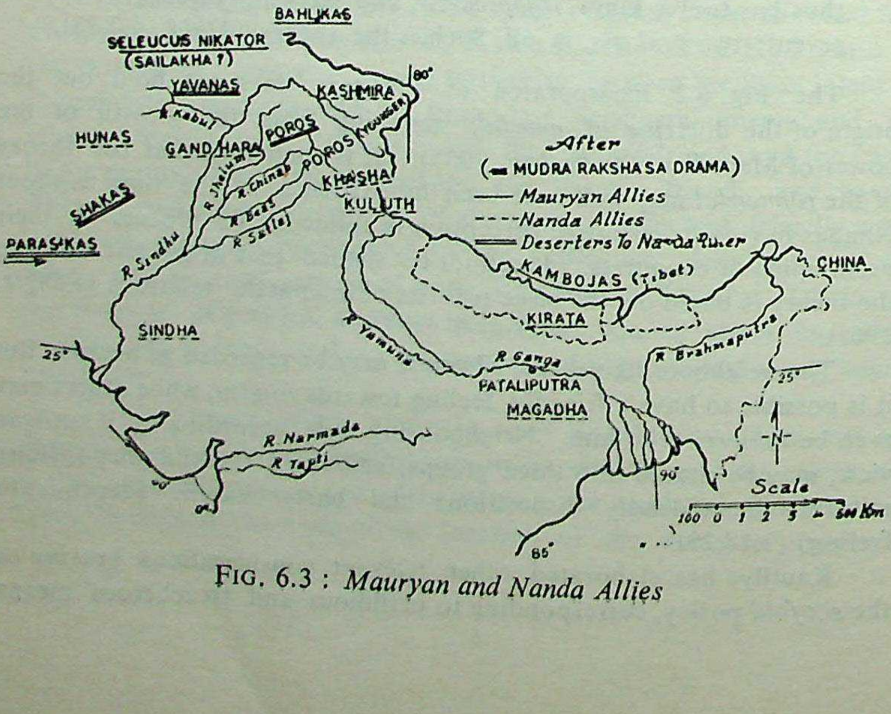
BAHLIKAS
SELEUCUS NIKATOR
(SAILAKHA ?)
YAVANAS
R. Kabul
HUNAS
GANDHARA
POROS
POROS (YOUNGER)
KASHMIRA
80°
R. Jhelum
R. Chinab
R. Beas
R. Satlej
KHASHA
KULUTH
SHAKAS
PARASIKAS
R. Sindhu
After
(MUDRA RAKSHASA DRAMA)
Mauryan Allies
Nanda Allies
Deserters To Nanda Ruler
KAMBOJAS (Tibet)
CHINA
KIRATA
SINDHA
25°
R. Yamuna
R. Ganga
PATALIPUTRA
MAGADHA
R. Brahmaputra
25°
N
R. Narmada
R. Tapti
90°
Scale
100 0 1 2 5 500 Km
85°

FIG. 6.3 : *Mauryan and Nanda Allies*

The above succint account of Kautilya's tactical skill in the game of politics gives expression to his theory that "war is a continuance of State policy by other means (*upāya*). The road to success lies not through unlimited application of force involved in absolute or total warfare. In deed, such warfare, without calculation of cost, would be a negation of strategy and intelligent statesmanship. War must serve the ends of policy and must necessarily be conducted with a view to post-war benefit. A State, which expends its strength to the condition of exhaustion, bankrupts its own policy" (*Pandit*, 1944). Kautilya indicates that "mere numbers do not count for much and an army of great size is much more liable to panic and collapse. He thus emphasizes the indirect approach to the problems of war and aims at the dislocation and paralysis of the enemy rather than its destruction" (*Ibid*).

From the above discussion, a valid conclusion can be safely drawn that the acquisition of territorial sovereignty on the neighbouring state by resort to war was the last inevitable expedient, if other efforts failed to make their impression and effects. The recognition of peaceful infiltration and occupation by colonisation and settlement in the border territory of the adjacent state through the creation of pilgrim centres and purchase of the territory of the peripheral state have not been neglected by Kautilya (*Kāngle*, 7.11.26).

The Mauryan Empire was a national state in independent India, based on the political philosophy of Kautilya, which Prof. Jacobi describes as "the proud self-consciousness of a great statesman of the Indian Bismarck" (*Pandit*, 1944). It was inspired by the concept of a national religion, the only germ to be found in ancient times of the ideal of Indian nationality.

The Machiavellian treatise of Kautilya breathes admittedly the spirit of unfettered absolutism in the ancient Indian tradition. Nevertheless, it cannot be construed to bear even an outward resemblance to Karl Haushofer's brilliant exposition of aggression on foreign lands, as Kautilya's absolutism had been marked out for resolute, laudble and unquestionable aims and ideals of national unity to ward off foreign invasions from without. Moreover, he took measures of public welfare and prosperity in the administrative machinery, set up by him in the Mauryan Empire, some of which had even anticipated those of modern times. Even Machiavelli's political tenents permeate with the spirit of national unity of Italy. It is no matter of surprise that Kautilya has earned the title of Indian Machiavelli at the hands of some learned scholars of today.

It is interesting to note that Satya Ketu Vidyālankār, in his 'History of the Mauryan Empire' (Indian Press, Allahabad, in Hindi, p. 135), quotes the authority of Thomas : Cambridge History of India, Vol. I, for his indentification of Parvataka of *M.R.* with Poros or his descendant. Satya Ketu Vidyālankār also maintains that Viśākh Dutta has inadvertently written 'Megakha' in lieu of 'Śaitākha', who can be no other than Seleukos (p. 135). He does not mention any authority in support of his statement. Can it be misreading of the manuscript ?

Vasudeo S. Agrawal observes that "travelling to the holy places on foot kept the current of civilization in constant circulation, linking the four corners of the land in the most intimate cultural relationships. They become a natural and spontaneous institution and links for ever. "The creation of pilgrim centres (*tīrthas*) was a positive technique in the process of 'land taking' or land settlement by the pioneers of the race. The forefathers who first made the land their own, created a *Tīrth* and gave it a name after some *Riṣī* or hoary ancestor or *Deva* who performed his penance (*Tapas*) there. Such region or spot is made holy in the minds of the people and binds them perpetually to the land. From this point of view the geography of India is a revelation and it would be difficult to find a beauty spot or spots with natural scenery, a mountain peak, a river, streamlet, reservoir of water or water-fall where the foot-steps of the pioneers and forefathers had not reached and which they had not deified as a *Tīrth*. (*Matsya Purāṇa*, A Study : All-Indian Kashiraj Trust, Vārāṇasī, 1953, pp. 115-6).

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2. I cannot for a moment forget the training and inspiration for my historical studies, received from my late father, G.D. Tāmaskar, whose unflagging zeal and flair for research work has always been an inspiring example and guide to me.

3. It remains a pleasant duty to record my sincere debt to Prof. S.G. Kāshīkar, Department of Political Science, Vidarbha Mahāvidyālaya for his prompt and ungrudging help in placing at my disposal some useful and relevant references.

NOTES

1. Kautilya's Arthaśāstra is a treatise of the 4th Century B.C. on Indian State Craft, written for the guidance of his royal master, Candragupta Maurya (*V.A. Smith, Early History of India, Oxford*, 1914).
2. "Monarchy at the highest should have empire extended right to the natural boundaries. It should be all-embracing, uninterrupted upto the very ends and should constitute and establish one state and administration upto the seas" (*Aitareya Brāhmaṇa*). Refer also Rājasekhara's *Kāvyamīmānsā* (Gaikwạ̄d

Oriental Series, 90), *Mārkendeya Purāṇa*, LVII, 59; *Vāyu Purāṇa*, XLV, 75-6; *Kūrma Purāṇa*, I. 35, Minor Rock Edicts of Aśoka (*Corpus Inscriptum Indica*, III, 205); *Mahābhārat*, III, 22, 253; Cf-II, 26-32; Kālīdās : *Raghuvanśa*, Canto IV; see also D.C. Sircār : *Studies in the Geography of Ancient and Mediaeval India* (Motilal Banarasidas, Vārāṇasī, 1960), Ch. I, 8-16 for the elaboration of the boundaries of the *Chakravarti-Kshetra*.

3. *Cf.* Aristotle's Politics : "Where there are neighbours, he (law-giver) will have to deal with them, *according to their characters*, and to see what duties are to be performed towards each (Italics are mine) (VII, 2.18). Aristotle is a strong votary of avoiding wars and conquests as far as possibl (VII. 14.20) without losing sight of the salutory effects of war when he observes : "War compels men to be just and temperate, whereas the enjoyment of good fortune and the leisure which comes with peace, tends to make them insolent."
4. *Cf.* Aristotle's 'Politics' : "a city (State) which produces numerous artisans and comparatively few soldiers cannot be greatest......" (VII. 4.6).
5. *Cf.* Aristotle's 'Politics : "but......a city (State) would not be constituted with a view to war or the conquest of enemies......all that sort of the thing must be excluded."
6. *Cf.* Aristotle's 'Politics' : "For most of these military states are safe only when they are at war but fall when they have acquired their empire; like unused iron they lose their edge in time of peace" (VII. 14.27).
7. It may be noted that the ends justified the means. This is forcibly expressed by Dietrich Von Nicheim, Bishop of Verdon, thus : "When the existence of the Church is threatened, she is released from the commendments of morality. With unity as the end, the use of every means is sanctified, every cunning, treachery, violence, simony, prison, death. For all order is for the sake of community, and individual must be sacrificed to the common good" (De Schiamate liberi, III). *Cf.* Aristotle's 'Politics' : "the defenders should make use of any means of defense, which have been already discovered, and should devise and invent others, for when men are well prepared no enemy even thinks of attacking them" (*VII.* 11,12).
8. *M.R.* : Act-II., SC. 2, SC. 13, 16 (also pp. 40-1), Act I, SC. 1, St. 20: Act V, Sc. 3, St. 11; Act V. Sc 4, St. 22; Act V, Sc. 2, St. 17.

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7

Some Geo–Political Concepts of Kautilya*

ABSTRACT

THE paper examines critically and summarizes in brief the theoretical constructs of Kautilya, concerning the territorial extent of supreme sovereign state, its boundaries and their characters, the problems of fortification, the location of the State capital, administrative divisions, means of communication and transporation, internal and inter-state relations, the prevalence of peace, etc. Finally, it has been contended that the paramount imperialism in the ancient Indian tradition, embodied in Kautilya's Arthaśāstra, has no counterpart in the occidental Geo-politics, including the geo-political precepts of Hausfoher.

Kautilya's Arthaśāstra, a practical treatise of the 4th Century B.C., on Indian statecraft, written for the guidance of his royal master, Candragupta Maurya (*Smith*, 1914), contains a rich ore of geo-political principles and views to be systematically and carefully smelted and analysed (*Johnson*, 1964). In this paper, a succinct and comprehensive analysis of Kautilya's geo-political principles and views has been attempted in the light of the geo-political structures and conditions obtaining in the country during his times.

Territorial Extent

Kautilya aimed at an extensive State, embracing a large territory within the Indian sub-continent which is gleaned from the following statement in the Arthaśāstra :

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* Reproduced with the kind courtesy of the Editor from, the Quarterly Review of Historical Studies, Vol. V-3, 1964-65.

"Place means earth. In that the region of the sovereign ruler extends northwards between Himavat and the sea, one thousand yoganas in extent" (*Kāṅgle* : 9.1.17-18). Obviously, Kautilya's objective had been to eliminate small warring states of the past within the subcontinent and to bring about a united State, co-extensive with it, to establish peace, order and security of life and property throughout its length and breadth, with the lofty ideal of setting up a Welfare State to promote economic growth and prosperity of the people. Kautilya seems to have derived inspiration and guidance for constituting an all-embracing territorial State from *Aitaraya Brāhmaṇa* (*Chaitanya*, 1965). Surprisingly enough, even in the ancient times, the urgent necessity of achieving an all-embracing, extensive and formidable State could be visualised to ensure human welfare and well-being. In actual practice, under Candragupta Maurya's regime, to almost full degree, Kautilya succeeded in fulfilling his ambitious, noble and lofty design of an extensive State, the boundaries of which touched upon the seas and extended into the *Daksinpath*, south of the Narmadā, normally the furthest limit of the earlier imperial States (*Vidyālankār*, 1929). He also succeeded in freeing the western frontiers from alien domination by pushing back and keeping out waves of foreign aggression of the Greeks, under the successors of Alexandar the Great (*Ibid.*). Evidently, Kautilya aimed at the formation of an extensive State in preference to a small one, although one may not disagree with the observation that the text of the treatise does not "provide for the needs of an extensive empire, and it is obvious that the work deals with the state of things as existing before the Maurayas had acquired paramount power" (*Smith*, 1914).

Population

No extensive territory without population can ever constitute a State. Kautilya's vision of an ideal State included a thickly populated country, for he points out that it is a State "in all senses." (*Shāmśāstry*, Bk. VII, Ch. 9, p. 364). His insistence on the loyalty and good character of the people for the maintenance and continued existence of the State can hardly be disputed at any time (*Kāngle*, 6.1.8). He poses the question whether scattered people or a concentration of people is to be preferred in the State. His categorial answer to it is :

"The former is better in as much as it can be kept under control and is not susceptible to the intrigues of enemies, while the latter is intolerant of calamities and susceptible of anger and other passions" (*Ibid.*, 7.11.23). Kautilya envisaged the colonisation of empty tracts of the State "by bringing in people from foreign lands or by shifting the overflow (of population) from his own country. (*Ibid*, 2.1.1).

Kautilya had a strong inclination to promote a rapid growth of male population as can be inferred from his suggestion that a man "may marry number of wives. For, wives are (necessary) for having sons," (*Ibid.*, 3.2.42). This policy is in complete accord with his concept of population, advocated by him for the maintenance of a large army for defensive and offensive warfare. He seems to favour a large man-power from the military standpoint, even of indifferent character, ability and capacity within the State. In this connection, he observes :

> "My teacher says that of the two countries, one with a large number of effete persons, and one with a small number of brave persons, the latter is better in as much as a few brave persons can destory a large mass of effete persons whose slaughter brings about the destruction of the entire army of their master.

Not so, says Kautilya, a large number of effete persons is better in as much as they can be employed to do other kinds of work in the camp; to serve the soldiers fighting in the battlefields, and to terrify the enemy by their number. It is also possible to infuse spirit and enthusiasm in the timid by means of discipline and training" (*Shāmśāstry*, Bk. VII, Ch. 12, pp. 366-7).

Elements of Sovereignty

No populated territory can ever claim the status of the State without being sovereign. *In other words*, any State worth the name should be unfettered by any other authority within its territory in the exercise of its powers and functions and be free from external or foreign control and interference. According to Kautilya, the king, the minister, *janapads*, the fort, the treasury, power the army and the friend constitute the elements of sovereignty (*Kāngle*, 6.1.1). It hardly needs to be asserted that without these elements of sovereignty the State would be put into jeopardy and its very existence would be threatened.

Boundaries and Their Functions

The pointed reference to the Himālayas and seas as limiting the territorial extent of the State (*Ibid.*, 9.1.17-18), obviously implies Kautilya's marked and logical preference for natural boundaries. The achievement of Candragupta Maurya has been correctly evaluated in this field in the following statement :

> "The first Indian Emperor, more than two thousand years ago, thus entered into possession of that 'scientific frontier' sighed for

in vain by his English successors and never held in its entirety even by the Moghul monarchs of the sixteenth and seventeeth centuries" (*Smith*, 1914). As the natural boundaries by themselves could not afford protection to the State and its people, he urged strongly the erection of defensive fortifications on all the four quarters of the boundaries. His classification of forts include mountain fortification (*parvata*) such as a rocky tract or a cave, desert (*dhānvana*) such as wild tract devoid of water and overgrown with thicket growing on the barren soil, or a forest fortification (*vanadurga*) full of wagtail (*khajana*), water, and thickets. Of these, water and mountain fortifications were regarded as the best suited to defend populous centres; and desert and forest fortifications were habitations in wilderness (*aṭavīsthānam*) (*Kāngle*, 2.3.1).

The function of boundaries, relating to the restriction and regulation of entry and exit of persons and commodities, as obtaining in the modern times (*Carlson*, 1962), were recognised and practised in the Mauryan Empire. The crossing of frontiers by the provision of passports seems to have been strictly enforced in cases of foreign visitors. Any violation of this rule was visited with punishment (*Kāngle*, 2.34.1). The unfettered flow of commodities was forbidden by law and a higher rate of toll than that on indigeneous goods was levied on imported goods as a protection against unhealthy competition arising out of the latter, though foreign traders were encouraged to establish commercial relations in the empire and home-made goods were exported to foreign countries (*Ibid.*, 2.4.32). *In other words*, smuggling of goods across the State borders was considered a crime.

Capital

The allusion in the Arthaśāstra to the location of the capital of the State with reference to its boundaries for natural protection and defence in depth manifests the geographical consideration which Kautilya bore in mind. Kautilya says in this connection that the king may have his fortified capital, as the seat of his sovereignty (*Somudayasthānam*) in the centre of his kingdom in a locality naturally best fitted for the purpose, such as the bank of the confluence of rivers, a deep pool of perennial water, or of a lake or tank, a fort, circular, rectangular or square in form, surrounded with an artificial canal of water, and connected with both land and water-paths (may be constructed), (*cf. Kāngle*, 2.3.3).

Administrative Divisions

Not very illuminating details about the administrative divisions of the

State occur in the Arthaśāstra. Viceroyalties in the Mauryan Empire during Aśokan regime were as follows (*Smith*, 1914).

1. The N.E. territories, with Taxilā as headquarters, comprising the Punjāb, Sindha, countries beyond the Indus and Kāśmir.
2. The Eastern territories, including Kalinga, with headquarters at Tosālī.
3. The Western territories of Mālwā, Gujarāt and Kāthiawār with headquarters at Ujjain.
4. The Southern territories, beyond the Narmadā.

The administrative division next in rank below the Viceroyalty seems to be a district (rāṣtra) with its chief, known as *rāṣtra-mukhya* (*Smith*, 1914).

The administrative organisation of the lower rank below the district has been described, while dealing with the formation of village, as follows :

"Villages consisting each of not less than a hundred families and not more than five hundred families of agriculture caste, with boundaries exteding as far as *kreśa* (2250 yards or 2175 metres), and capable of promoting each other, shall be formed" (*Kāngle*, 2.1.2). While setting up new villages, it has been urged to take advantage of the nature of the tracts concerned. "He should fix, at the boundary lines, a river, a mountain, a forest, a stretch of pebbles, sand, etc., a cavern, an embankment, a *Śamī*, tree, *Śālmakī* tree, or milk-tree (like *Asvattha*, *Nyagrodha*, etc.) (*Ibid.*, 2.1.3).

He should establish a *sthāniya* in the middle of eight hundered villages, a *droṇamukha* in the middle of four hundred villages, a *kārvaṭika* in the middle of two hundred villages (and) a *Saṁgrahaṇa* in the midst of a collection of ten villages" (*Ibid.*, 2.1.4.)

It can be a safe conclusion from the administrative structure obtaining in the Mauryan Empire that Kautilya exhibited his firm conviction in the unitary type of strong, powerfull and efficient central government, able to control and regulate all minute administrative details to the lowest rung of the administrative ladder.

The Means of Communication and Transportation

It had been realised that effective means of communication were essential to keep the farflung empire well-knit and to provide for quick and prompt deployment of military troops to the areas, where they were needed in times of emergency and danger. Kautilya seems to have not neglected water transport, though he considered that water route is not constant (*Kāngle*, 7.11.17). The Arthaśāstra also throws much light on the encouragement to navigation and shipping in Kautilya's times with a view to promote commerce and trade in the empire (*Ibid.*, 2.28.1-26). It need hardly be said that the then existing primitive means of communication compare unfavourably with those of modern times, but they must have served the requirements of the contemporary period quite effectively. The details of the classification, the nature and character of the communication cannot be discussed at length in this brief paper. Elaborate measures were taken for the maintenance, protection and regulation of traffic on roads, (*Kāngle.*, 2.4.1-3). In short, the means of communication were arteries of trade and commerce and the life-blood of the State.

International Relations

Besides adopting a policy of public welfare with socialistic trend of State functions, Kautilya did not neglect the dangerous and troubled spots within and outside the State. Though his expressed objective, intention and purpose had been to build up an absolute and paramount monarchy within the Mauryan Empire, republics and corporations were allowed their continued existence. But their irredentist activities were frowned upon by Kautilya and he even urged their extinction by sowing seeds of discord among them, if found to be disloyal and engaged in threatening the peace, order and security within the State (*Vidyālankār*, 1929).

Inter-State Relations

The Mauryan Empire did not and could not exist in inert and passive isolation from the contemporary whirls of political and international currents. The existence of elaborate regulations concerning foreigners, "is a conclusive proof that the Mauryan Empire in the third century B.C. was in constant intercourse with foreign states and that large numbers of strangers visited the capital on business" (*Smith*, 1914).

> "The inter-state relations, as expounded and preached in the Arthaśāstra, may apparently smack of undiluted imperialism, shorn of all moral considerations and qualms of conscience. However, the Arthaśāstra's geo-political thinking, views and principles cannot be interpreted without due references to the contemporary geo-political structure and conditions. The author of the Arthaśāstra, having made a penetrating and apt analysis of the then existing political world, had been convinced that the house divided against itself could not halt waves of foreign attacks and invasions into the country and it could easily fall a helpless prey to any powerful alien invaders, outside the Indian territory. It is not surprising that the realisation and attainment of at least outward cohesion and

unity in the country was imperative to weld the far-flung and extensive territory of the Indian sub-continent into a single strong, paramount and sovereign state or Cakrvartī-ksetra" (*Ibid.*, 1914).

Undoubtedly, the Arthaśāstra may be regarded as the Bible of absolutism in the ancient Indian tradition.[2] Though the Arthaśāstra's geo-political tenets may seem to bear an outward resemblance to Karl Haushofer's brilliant exposition of aggression on foreign lands, Kautilya's absolutism had been tinged with resolute, laudable and commenable aims and ideals of national unity to ward off foreign invasions from without. The cardinal creed of his inter-state relations is enshrined in the following aphorism :

> "Heat is the means of joining together" (*Kāngle,* 7.3.7). The truth and reality of this creed can hardly be doubted and challenged even in the so-called "enlightened" world of today, whenever the problem of preservation and protection of national territorial integrity arises and has to be dealt with in a practical way.

Kautilya regarded that permanent peace between neighbouring States was unattainable. As a consequence, when prospering, he (*would-be* conqueror) should make war (*Ibid.*, 7.1.14).

> "Encircling him (King Ruler) on all sides, immediately next to his, is the constituent called the enemy" (*Ibid.*, 6.2.14).

A systematic and critical exposition of international relations and affairs embodied in the Arthaśāstra has been already treated *in extenso* in a separate and independent paper to judge them in a proper historical perspective.

However, one cannot lose sight of the fact that the relations between kingdoms prior to the consolidation of the Mauryan Empire involved an "unceasing struggle for existence" (*Smith* 1914). It is not surprising that "no considerations of morality were allowed to influence statecraft, which avowedly preferred the use of insidious and treacherous means, including every form of secret assassination" (*Ibid.*) The ends, therefore, justified the means.

The brief discussion points to the conclusing that the international relations, postulated in the Arthaśāstra, have to be examined, matched and interpreted against the background of India's contemporary geo-political history to seek a clear understanding and valid justification. Karl Haushofer's geo-politics has only apparent, but no real, resemblance to that of the Arthaśāstra. The German geo-politician was a votary of imperialistic designs of his country, whereas the Arthaśāstra championed the cause of a paramount power in India for the protection and defence of the territorial integrity and national unity of the country against foreign domination.

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PART II

Mediaeval India

8

The Geographical Genesis of Hell in the Maha-Siva-Purana*

ABSTRACT

THE paper embodies the human curiosity about the untamed power of the nature and religious beliefs engendered by the former, revealing some harmony with the mode of life, the economic interests and geographical environments of the people. The Mahā-Śiva-Purāṇa contains two distinct concepts on the routes to the hell and the inhospitable conditions of the hell. The whole concept of the hell in the *Purāṇa* smacks of undilutated theory of environtalism.

I. INTRODUCTION

At least since the days of Ratzel, if not earlier, the problem of correlationship between religion and geography has been actively and seriously engaging the attention of some scholars and thinkers. "Enthnography knows no race", Ratzel observes, "devoid of religion, but only differences in the degree to which religious ideas have developed" (*Friedrich Ratzel*, 1896-98). More strong and powerful view and opinion are expressed by Tolstoy when he remarks : "never in any society of men, since men first became rational creatures, could they live or have they lived without a religion" (*Whitbeck*, 1918). R.H. Whitbeck is quite emphatic on this point while he affirms that religion and associated beliefs are "the products of thoughtful observations of natural phenomena, representing the human mind, groping for an explanation of the seemingly supernatural" (*Ibid.*). Most religions belong to the people, who have either recorded history or historical traditions of longstanding and who have left a literature, hymns or sacred books, such as those of the Aryans in India. Among such peoples, it has been pointed out by Whitbeck, that there has been found "a religion befitting their stage of culture and clearly influenced by their geographical environment" (*Ibid.*).

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Several factors combined may serve to mould a people's religion of which geographical influence has been of conspicuous importance, sometimes, only perceptible in many minor ways and also cultural impact and assimilation, involving a long process of evolution.

Accepted and recognised religious beliefs reveal some sort of harmony with the mode of life, the economic interests and geographical environment of the people. In the early days of human knowledge, all natural phenomena were mysteries and man tried to satisfy his curiosity concerning them by inventing fanciful myths as we, now, invent more scientific hypothesis (*Tylor*, 1891). Religious faiths and beliefs represent "the early form of scientific curiosity" (*Lang*, 1977). Religion has been considered to be an "outgrowth of man's sense of the Infinite, as awakened by natural objects" (*Maxmuller*, 1897). Every thing, that is unusual or unexpected, stirs man's religious imagination and vision and Bosset claims that religion "rests upon fear of more or less unknown powers which everywhere surrounds the existence of men" (*Ibid.*). The growth and progress of scientific knowledge can modify religious thinking, and, some times, lead to a more rational basis of religious beliefs and views.

II. THE CONCEPT OF ROUTES TO THE HELL

After having discussed the impact of geographical environment upon religious thinking, beliefs and views in general, we may, now, proceed with our specific purpose of attempting an exposition of the geographical genesis of the Hell in the "*Mahā-Śiva-Purāṇa*".

The Hell (*Naraka*) has been visualised as geographical environment liable to cause pain and torture in all religions. Naturally such a region or place, having a violent departure from the common experience of normal living human being, has somethings unusually dismal, depressing and horror striking about it to cause pain and torture of unprecedented nature and degree to any sinner on his or her arrival in or at it. George Kuriyan (1961) in his paper on "Geography and Religion" has made a solitary but elaborate reference to the biblical concept of Hell by mentioning the environment of arid desert region with scarcity of water and parching heat of the burning Sun in the birth-land of Christianity. In vivid contrast to the single environmental feature, the *Mahā-Śiva-Purāṇa* cites various kinds of dismal and horrible environments with marked degree of geographical differentiations, bringing out the knowledge of an extensive territory of vast expanse, known to its author intimately, corresponding to the sub-continent of India and equally applicable to other parts of the then-known world. The concept of the Hell in the

Purāṇa embodies and covers dreary conditions of the land-surface, watery, marshy and swampy grounds, impregnably dense and luxuriant forests, impassable desert tracts and seabeaten coasts. The elaborate descriptions of the Hell have been broadly divided into two parts, *namely*, the various routes to it and dreadful conditions obtaining in it.

To sum up, unsurmountably difficult, notably depressed, entirely uninhabited and markedly inhospitable environments serve to constitute the characteristic features of the distantly located Hell, as alluded to in the *Purāṇa*, which have been more fully examined *seriatim* in the sequel. At the outset, we shall endeavour to throw light on the characters of routes beset with manacing threats and dangers, leading into the Hell (*MPS* : 672-27)[1].

1. *Land-surface* : Highly uneven and broken surface of the land has been ranked among the several treacherous routes to the Hell in the *Mahā-Śiva-Purāṇa*. The ground with uneven (*viṣam*) and extremely deep depressions (*MSP* : 669.11) and tracts of coastal land, covered by high and steep and impassable forest-clad mountains with intervening deep valleys (*Ibid.*) and paths strewn with sharp nails (thorns ?) (*MSP* : 669.12) invoke some of the characteristics of routes to the Hell which could, in those days of the absenee of roads and other means of communication and transport, impose unimaginably difficult obstructions in the normal movements of human beings as well as other creatures. A specific, pointed and distinct mention has been made of the terror-striking Vaitarṇī (*MSP* : 682.36) River, with its name suggesting the difficulty of either fording or crossing it, among the obstacles on one of the routes to the Hell.
2. *Secondly* : water-bearing tracts, marshes and swampy stretches of land suggest a close resemblance to the uneven land mentioned above under the first category of routes to the Hell. The *Purāṇa* mentions an extensive sheet of polluted water (*MSP* : 670.15) and extensive muddy swamps (*MSP* : 670.10) as obstructive elements on the way to the Hell.
3. *Thirdly* : the extremes of climatic and weather conditions, not unlike the above two environments, have not failed to make a horrifying impression to attract the attention of the *Purāṇa* and to class them among causes of inescapable obstructions on the outward march to the Hell. Snow cover (*MSP* : 669.17) due to extremely low temperature, splinter dry and high winds (*MSP* : 671.24), sharp and heavy downpours of rains (*MSP* : 671.23), gusts of roaring and sweeping winds, bearing extensive and dark clouds (*Ibid.*), or dust-laden winds (*Ibid.*), flashes of

lightning, threatening to burn every thing, accompanied by cloud-bursts (*MSP* : 670.21), burning and parching heat resembling outbursts of live coals (*MSP* : 671.22), and rolling of stones and pebbles by sweeping wind blasts (*MSP* : 670-21) are graphically described as stumbling blocks on one's march to the Hell.

4. *Fourthly* : the rank, luxuriant and dense clusters and extensive blocks of virgin and dark forests and forest-fires offering phenomenal difficulty in the normal movements of human beings and hence, constituted an environment of repelling route to the Hell. Tree-bearing mountains (*MSP* : 669.11), dark tracts of bamboo-forests with numerous pointed and piercing offshoots and twigs (*MSP* : 669.12) and fire-smitten forest blocks (*Ibid.*, 14.669) are a series of obstacles cited in the *Purāṇa* on the passage to the Hell.
5. *Fifthly* : the contrasting environment of arid and waterless deserts offered equally difficult and repellent route to the Hell, if not greater. The deserts mentioned in the *Purāṇa* conform to their two categories, as classified by modern geographers, *Śilā*, corresponding to Hammada and *Bālukā*, corresponding to Erg of the Sahara region. The allusions to vast expanses of sands (*MSP* : 669.9), extremely heated up sands (*MSP* : 669.12), waterless expanses of land (*MSP* : 671-26), neck-deep hot sands (*MSP* : 670.15), pointed bare rocks (*MSP* : 669.9), heated rocks (*MSP* : 669.14) and heated rock-surface (*MSP* : 679.14) fit in normally with the desert conditions of burning and parching heat of the environment (*cf.* the Thar Desert of India in Rājasthān)
6. *Sixthly* : sea-beaten coasts spraying water on any passerby (*MSP* : 671.24) constitute also formidable stumbling block with their malevolent and tormenting effects on living beings on the passage to the Hell.
7. *Seventhly* : besides inanimate environments, tracts infested by wild animals and creatures and evil spirits are considered to be a constant source of parallelled troubles to any traveller and hence, reckoned as obstacles on the path-way to the Hell. Wild lions, tigers, wolves, pythons, leeches, mosquitos, poisonous flies and serpents and tempestuous elephants, wild pigs with sharp teeth used for digging earth, and other terrible creatures and dreadful evil spirits include terror-striking *Dākinīs* and mighty *Rākśas* (*MSP* : 670.16-19) on the passage way constitute no mean dangers while marching towards the Hell.
8. *Eighthly* : unusual and abnormal physical or natural phenomena, such heavy and terrific meteoric showers and falling of glowing

fire (*MSP* : 671.22) are cited as obstructive hindrances on the routes to the Hell.

In a nutshell, harsh, repellent and severe conditions of several geographical environments, devoid of provisions and water, at some places or in regions, enroute, formed unsurmountable barriers to the Hell (*MSP* : 671.26).

III. THE DEPICTION OF THE HELL

As analysis of the depiction of the Hell itself in the *Purāṇa* can serve to confirm the conclusion drawn above. The heated rock-surface (*MSP* : 679 14), the swarming population of various horrible and tormenting animals and creatures, having bodies or mouths of lions, tigers, elephants, crocodiles, serpents, tortoises, eagles, vultures, owls, bats, camels, crabs, frogs, the sharp-edged Yamal Mountain and terror-inspiring Vaitarṇī River, one-legged and three-legged beings, bare rocks, poisons, dark forests, nightsoil and urine (*MSP*; *Ibid.*, 681.29-42) and similar other numerous undersirable, ugly and uninviting environmental features enter into the over-all picture of the Hell.[2]

IV. THE PROBABLE RESIDENTIAL PLACE OF THE AUTHOR

From the above discussion, it may be inferred that the author of the *Purāṇa* must have been resident in a favourable environment or increment of dry and level tract of land, shorn of dense and dark forests, having ease of circulation of men, animals and goods, with ample supply of water and plenty of food-stuffs, comparatively free from tormenting features, ensuring a sense of security and stability in every-day life. The region of his residence must have been somewhere in the plains of the Gangā River, where environmental conditions contrasted favourably but sharply with those of the Hell.

V. CONCLUSION

The above analysis points to the safe and sound conclusion that the concept of the Hell in the *Purāṇa* gives expression to unqualified, unmixed and undiluted geographical determinism to its fullest degree[3]. It is not surprising or astounding to come across the absence of and appreciation for even faint concept of geographical possibilism[4] in the age of almost untamed and virgin and hostile environment, with little or no immediate expectation of harnessing and modifying the forces of nature in the light of the stage reached in the progress and growth of science and technology in those days. To anticipate even the dim vision of geographical possibilism or an alternative to environmentalism would tantamount to reading the cultural history of our country backwards.

NOTES

1. The relevant where is the verse succintly summarises the outstanding and prominent features of routes to the Hell :
2. The names of the *Naraks* in the *Purāṇa* have been interpreted here as personification of animals and creatures of the world.
3. Geographical determinism invokes the concept that the human life is conditioned by geographical environment.
4. The nature offers several possibilities, leaving the choice to be made by Man, according to his capacity and capability. (For fuller discussion and details on these concepts, the reader is referred to Grifith Taylor : Geography in the Twentieth Century, Chapter VI, on Environmentalism and Possibilism.)

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9

The Sites of Human Settlements in the Maha–Siva–Purana

ABSTRACT

THE *Purāṇa* enjoins the avoidance of sites for human settlements, not conducive to human comforts and enumerates their negative features. On the basis of the work, the sites of settlements may be categorised into (a) Escarpments, (b) Summits of mountains or hills, (c) River banks, (d) Lakes or tanks, (e) Islands, (f) Sea-coasts, (g) In forests and woods. The most significant consideration in the selection of sites lies in the assured, uninterrupted and abundant water-supply.

The *Mahā-Śiva-Purāṇa*, professedly a religious work and not a treatise on geography of the contemporary times, not surprisingly enough, incorporates only and scattered references or notices of human settlement, having implicit or explicit religious bearing of some character or other, throughout the whole work. The names of rivers, mountains, towns and cities, embodied in the *Purāṇa*, creates an incontrovertible impression that its author must have been acquainted directly or indirectly with the major portion of India, extending from the Indus Basin in the west to the Gangā Delta in the east, and the Himālaya in the north to the Cape Camorin and the adjacent offshore tracts in the south, excluding the region lying to the east of the Gangā Delta.

I. THE NEGATIVE TRACTS FOR HUMAN SETTLEMENTS

Before attempting an analysis of the sites of human settlements mentioned in the *Purāṇa*, it will be pertinent to examine the negative tracts or those unsuitable for human settlements, alluded to in it. The enumeration of suitable features for the selection of a place for devotional purposes can be interpreted and extended to be equally applicable to the selection of sites for human settlements for temporal purpose also to a large degree. It has been categorically averred that the sites should be immune from noises of wild animals and creatures, attractive due to the existence of flowers, creepers, etc., free from the rank growth of *Kuśa* (grass) (*Poa cynourovides*), trees, roots, and bulbs, and the out-break of fire, secure from the encroachments by floods. dry leaves, mosquitos, wasps, wild animals and creatures and distant also from the places set aside for the disposal of dead bodies, snake-holes, dilapidated buildings, old shrines, rivers (*nadī*) or streams (*nada*), seashores, freedom from the wild and rank growth of vegetation, ensure the security of life against the menace of wild animals and creatures, and be able to promote human comforts, and, at the same time, scrupulously avoid the former human 'occupance', littered with old ruins and with the possibility of threatened ruins of worn-out buildings and attendant dangers from them (*MSP* : 997. 16-20).

II. THE CATEGORIES OF SITES OF HUMAN SETTLEMENTS

The *MSP* has mentioned three categories of locations for setting up Śivalayas or Śiva shrines, *namely*, mountains, rivers and seas, considered as eminently holy (*MSP* : 765.43, 812.83, 946.1, 963.16), which can be safely interpreted as nucleii around which human settlements grew, developed and existed unless natural environmental and social forces spelled their ruin. It is manifest that the settlements, embodied in the *Purāṇa*, had sprung and grown around the nuclear cores of Śiva shrines and hence their predominant, if not exclusive, function can be treated as religious, bearing on religious beliefs, rituals and activities centred on Śaivism.[1]

The following category of sites of settlements may also be inferred directly from the *Purāṇa* :

(a) *Escarpments*

The allusion to the dwelling place of Nārada Munī in a Himālayan cave (*MSP* : 178.12) can hardly throw light on the general use of cave-dwellings by others than ascetics, either in the past or contemporary times. However, the *MSP* incorporates a reference to the dwellings of Brahma-Kanyās in caves (Darī) (*MSP* : 236.49). Normal, ancient cave-dwellings were situated on escarpments of hard rocks or compact earth or at the foot-hill zones and perched terraces on hill or mountain flanks or sides or river-valleys.

(b) *Summits of Mountains or Hills*

Having noted the possibility of cave-dwellings on escarpments, we may, now, turn to other principal categories of sites of human settlements.

Both Śiva and his consort, Pārvatī, had their abodes in the mountainous region of the Himālaya. Gaurīshankar, otherwise known as 'Śringi-tīrtha' (*MSP* : 352.36), has been mentioned as the abode of Śiva's consort, Umā. The following settlements, forming nucleii around Śiva shrines, are mentioned as occurring on mountains or hills :

(1) *Kedāra*, with the *Jyotir-linga*[2] of Śiva, in the Himālaya known as *Kedareśvara* (*MSP* ; 517.2, 520.23, 521.31 and 529.22). The reference to '*Himvatpraste*' (*MSP*: 529.22) clearly indicates its site on snowy region of the Himālaya. (2) *Bhīmāsankara* in the realm of *Dākinī*, close to the source of the Bhīmā river, with the *Jyotir-linga* of *Bhīmāśankar* (*MSP* : 517.3, 521.34 and 529.22), together with the *Up-linga* of *Bhīmeśvara*, hard by it on the Sahya Mountain (*MSP* : 532.40), (3) *Srī-Śaila*, on the hill of the same name, or alternatively also known as *Srī-Parvata*, with the *Jyotir-linga* of *Malikkārjuna*, in the Karnool district of Āndhra Pradesh, close to the Krasṇā river, 80 kms. from Krasṇā railway station (*MSP* : 1517.3, 518.10 and 529.21), (4) *Śivālaya* on the Saptasringa, with the *Jyotir-linga* of *Ghuśmesvara* (*MSP* : 524.52) and Ghumeśa (*MSP* : 529.23), (5). The *Jyotir-linga* of *Arbudāchala* on the Mount Abu (*MSP* : 537.26) with other Śiva idols of *Achaleśvara*, *Kardameśa* and *Kotīśa* (*MSP* : 537.26), (6) *Gokarṇa*, on the *Gyān Parvata* (*MSP* : 538.2-7 and 741-20) with the Celebrated Śiva idol of *Chandrabhāla*, about 48 kms south of Goā in the Kumtā Tāluka of the North Kanara district (Kane, IV. 1953), (7) *Deo-prayāga* (*MSP* : 540.15) on the confluenee of the Alakanandā and the Bhāgirathī rivers, the combined stream being called the Gangā, with the Siva idol of *Laliteśvara*, at an elevation of about 690 metres, (8) *Amarkantaka* (*MSP* : 741.19) on the Amarkantaka Mountain.

Evidently, most of these settlements show a marked tendency to be on interstream areas or close to sources of large rivers. These appear to be 'defence-point' settlements among forest-clad mountains at healthy and dry sites in the days of antiquity for want of insecurity and instability.

(c) *River Banks*

These are obviously wet-point or waterseeking setllements. The urban settlements of this group, occuring in the *MSP*, are :

(1) *Vārāṇasī* on the Gangā river (*MSP* : 517.2, 521.30 and 529.22) with the *Jyotir-linga* of *Viśveśa*, and at Kāśī called *Viśveśaavatāra*) and *lingas* known as *Til-Bhāndereśvara* and *Daśāśvamedha* (*MSP* : 533.3.), (2) *Trimbaka* on the Gomatī (Godāvarī) river (*MSP* : 517.2, 521.34 and 529.22) with *Jyotir-linga* of *Trambyaka*, (3) *Uijain*[4] (*MSP* : 529 : 21), on the Śipra river, having the *Jyotir-linga* of Mahākāl, (4) *Nayapalpurī* (*MSP* : 540.11) has been identified with Khātmāndū in Nepal, with the

Paśupatiśvar idol of Śiva, on the confluence of the Viṣṇumatī and Bhāgmatī rivers. Its earliest name has been Manju Patan, after the Buddhist saint, Manjusrī. Similarly, other settlements are mentioned in respect of the *Up-lingas* of Śiva as follows : (5) There is a pointed reference to the town of *Mathurā* (*MSP* : 741.20) on the Yamunā river and Śiva idol with the appellation of *Bhūteśam* (*MSP* : 532-39). (6) On the *Malikāsarasvatī* with the Śiva idol of *Bhūteśvar*, (*MSP* : 532.41). The other *lingas* mentioned in the *MSP* are cited below : (7) On the Kośiki (Kośī) : *Nāgesvar* (*MSP* : 537.27). (8) On the Phalgu river : *Pureśvara* (*MSP* : 533.5),[5] Śiva idol near Gayā, having 7 quarters (*MSP* : 5.31). (9) On the Taptkā (Tāpti) river : *Kumareśvara*, *Siddeśvara* and *Seneśa* (*MSP* : 535.11). (10) On the Pūrṇā river : *Rāmeśvara*, *Kumbheśa*, *Nandiśvara*, *Pūrṇaka* and *Punjeśa*, (*MSP* : 532.12). As the name of the Pūrṇa river follows that of the Taptkā, it may be identified with the chief tributary of the latter. (11) *Prayaga* on the Gangā river, with *lingas* of *Daśāśvamedha*, *Someśvara*, *Bhārdwajeśvara*, *Śultankeśvara*, *Mādhaveśa* (*MSP* : 535.13-15, 75.1, 244.1, 741.9). (12) At *Śāketa* : *Nageśa* on the right bank of the Ghāgarā R. (*MSP* : 535.16). (13) On the Sindhu (Indus) river : *Kapāleśa*, *Vaktreśa*, *Dhoutapāpeśvara*, *Bhīmeśvara*, *Suryeśvara*, *Nandeśvara*, *Nākeśvara* and *Rāmeśvara* (*MSP* : 536.19-21). (14) *Ayodhyā*[6] : on the Ghāgarā river (*MSP* : 741.20). (15) *Kankhala*, on the Ganga river (*MSP* : 253.12) about 3 kms from Haridvār, (16) *Kuruksetra* : On the Sarasvatī river (*MSP* : 84.24) has been a sacred tract since the Rg-Vedic times, the history of which is lost in the mist of antiquity. Kuruksetra had been the centre of the Vedic culture in the Brahmanical period and has been called '*Dharmaksetra*' in the Gīta.

These are a few telling evidences of new settlements sought to be aligned along river banks to facilitate primarily water-supply for domestic purposes and secondarily, for means of transport. Rivers also accorded ease of circulation of goods and human beings in the past due to the marked lack of other means of communication and transport in those days. It may be interesting to note that the allusion to the cruel and tormenting Vaitarṇī (*MSP* : 682.36) condemns it to the status of Hell (*Naraka*) as its name itself is indicative of the difficulty of fording or crossing it.

(d) *Lakes or Tanks*

No separate and distinct category of lake or tank sites has been referred to in the *MSP*, though the places occurring on them have been mentioned. One of the twelve *Jyotir-lingas* of Śiva, with the appellation of *Ghuśmeśavara*, on the Saptasringa Mount, occupies a position close to a lake to which there is a pointed reference (*MSP* : 524.52-55). Similarly, one

Up-linga, bearing the name of *Karmeśa*, an offspring of Onkār, is definitely mentioned as occurring near the famous Bindu Lake (*MSP* : 532.38). Puṣkara (*MSP* : 741.19) on a lake of the same name rounds off the list of this category of sites.

(e) *Islands*

Not unlike lakes or tanks, no independent category of island sites has been recognised in the *Purāṇa*. There are two kinds of island sites : river islands and the other, sea or coastal islands. In the former category, Omkār (*MSP* : 532.37) on an island of the Narmadā, lies with the Śiva idol of *Dugdheśa*[7] and Setubandha is situated on the Pamban island, off the southern tip of India, with one of the twelve *Jyotir-lingas* of Śiva (*MSP* : 517.4).

(f) *Sea-coasts*

A few settlements occur in the *MSP*, with their placement on sea-coasts. Among the *Up-lingas* of Śiva, two localities are mentioned on the sea-side, *namely*, *Brnagukachha* (*MSP* : 532.36) with the *Kudreśvara* idol on the Gulf of Cambay (*Khambhāt*) as an offspring of *Gupteśvara* and the other city *Rāmeśvara* (*MSP* : 532.42). The Similar category of towns with other idols of Śiva are at *Gangā-sāgar* (*Sangameśa*) (*MSP* : 533.3),[9] *Puruṣottampuri* (*MSP* : 535.17),[10] on the east coast, having a large idol of *Bhuneśa*, near the *Pūrṇa-sāgara* confluence on the west coast (*MSP* : 536.22-23) having Śiva idols of *Vimaleśvara*, *Kantakeśvara*, *Dhartukeśa* and *Siddheśvara* (Kāne, 1953), *Gokarṇa* with the idol of *Chandrabhāla* (*MSP* : 741.20), *Somanātha* in Saurāṣtra with the principal idol of *Somanātha* (*MSP* : 517.3. 510.8, 529.21), *Dvārāvatī*, (modern Dvārkā) (*MSP* : 741.20)[11] with the principal idol of *Nāgeśa*, and lastly, near *Jaya-Stambha* (Victory Pillar), the image of *Sarveśvara* and another idol close to it at *Stambheśwara* (*MSP* 416.15). *Stambheswara*, probably, refers to modern Khambhayat situated in the Gulf of Cambay.

(g) *Settlements in Forest and Woods*

Apart from towns, cities and villages to which reference has already been made in the *supra*, it appears that most of the small-sized settlements, forming religious sanctuaries, occurring in the seclusion of forests and woods, by their very nature, character and function were rural *par excellence*. An outstandingly sanctified and favourable resort in the block of forested area, having settlements of ascetics, often mentioned is Nimiṣa (*MSP* : 301.26) or Naimiṣaraṇya (*MSP* : 539.12-13)[13] on the Gomatī river. The notices of *āsrama* (*MSP* : 257.48-9, 314.69, 364.43, 495.2, 496.9, 485.14), *svāsrama* (*MSP* : 496.11, 628., 662.68, 715.20 and 621.27), *tapah-sthāna* (*MSP* : 333.2, 499.4), *tapaśchar graha* (*MSP* : 350.19), *matha* (*MSP* : 910.31, 970.74) '*vanyah sanyāsī* (ascestics in forests) (*MSP* : 161.41), *vanegrāma* or forest village (*MSP* : 657.35) are clearly suggestive of secluded forest settlements of ascetics and their disciples.

It is worthy of note that we get the solitary glimpse of a sea-side village, named Bāṣkata (48.2) which can point to the conclusion that there might have been similar other coastal villages. This conclusion is confirmed by an exaggerated number of velākulas (harbours) mentioned in the Skandpurāṇa. Besides the large-sized urban settlements, already noticed above, there are references to '*grām* or village (*MSP* : 400.45) and '*grām-nivasina* or rural inhabitants (*MSP* : 697.47). In a separate study, the author has convincingly shown that the country in the preceding times of the Jātaka Tales had been quite populous with numerous rural settlements existing in those days (*Tāmaskar*, 1967-8).

At the end, it will not be out of place to point out that the term '*Janavāsa*' (*MSP* : 93.13) denotes a generic term for human settlements, while 'āvāsam' (*MSP* : 741.22) appears to be a more comprehensive term to include also habitats of gods, perhaps, of other creatures too.

CONCLUSION

Besides the three categories of sites of settlements explicitly mentioned in the *MSP*, *namely*, mountains, rivers and sea, other categories of sites, *namely*, escarpments, lakes or tanks and islands can be inferred and added to these classes. It has also to be noted with interest that the same place, in some cases, may partake of more than one category of sites such as Srīśaila, Gokarṇa, Śivālaya, Deoprayāga, etc. The consideration of assured, uninterrupted and abundant water-supply for domestic as well as religious purposes seems to outweigh all other factors in the selection of sites for human settlements. All sources of water-supply could, therefore, naturally be regarded as holy and sanctified. Even the settlements on mountains or hills could hardly brush aside the elementary needs of water-supply, as evidenced by the fact that most of them tended to be close to the sources of large rivers.

NOTES

1. While mentioning the names of places, towns, cities and other localities, care has been taken to cite all the names of Śiva idols, particularly with a view to enable their identification and locations whose names do not occur explicitly in the *Purāṇa*.
2. *Jyotirlinga* stands for one of the twelve principal images or idols of Śiva in *MSP* and *Uplinga* for subordinate images (*Kāṇe*, 1953).
3. *P.V. Kāṇe* (1953) observes that there is hardly any other city in the world that can claim greater antiquity and greater popular veneration than Banāras.
4. The old city has been destroyed by earth-quake or an unusual flood of river (*Imperial Gazetteer of India*, XXIV, 112). It was known to classical Greek writers. Ptolemy has referred to it in the *Periplus* as Ozene.

5. The combined watercourses of two streams, Lilājana and Mohana, issuing from the highlands of Chhotanagpur, from the Phalgu river. The rivers unite roughly 3 kms, north of Gayā and combined streams flow under the name of the Phalgu. Near the Barabar Hill, the river bifurcates into two branches which in unison with other small streams at the end of the journey are known by the name of Harohar. The river falls into the Kuyal near Monghyr. From a map incorporated by Cunningham in *Archaeological Survey of India*, Vol. I, facing p. 3, it has been shown that the Phalgu has changed its course. Out of all the rivers mentioned in the *Vāya Purāṇa*, close to Gayā, M.H. Pāndey identifies the Mahānadī with the Phalgu. The Phalgu is known in the Buddhist Literature by the name of the Niranjana, identified with its modern name of Lilājana, the Phalgu's chief tributary.
6. The translator has mentioned Ayodhyāpurī, which lies close to Sāketa.
7. One *Up-linga, namely*, Dugdheśa, is said to be near *Mahākāla* on the Narmadā (MSP ; 532.36-37), as an offspring of the latter. The principal Linga of Śiva is about 50 kms., n.w, of Khāndwā. In the Hatayudha-stotra engraved in the temple of Amreśvara at Māndhātā on the left bank of Narmadā, dated Samvat 1120 (1063 A.D.) (*Epigraphica Indica*, Vol. 25, p. 175), it is stated that he dwells in Māndhātāpura on the confluence of the Narmadā and the Kāverī. *Pargiter* identifies Mahiṣmatī on the Narmadā with Onkāra Māndhātā (an island), whereas *Dr. Haldār* and others hold that it is Maheśwara Māndhātā island attached to Nimār district of *Madhya Pradesh* (Kāṇe, 1953). One of the principal *lingas* of Śiva is said to have been established by Rāma himself.
8. *Cf.* the *Skanda-Purāṇa*. It was known as Bhārukaccha in the *Jātaka Tales*. (Suppāraka Jātaka, No. 463 mentions it as sea-port. *Ptolemy* and *Periplus* call it Barygaza. It was also called Bhragupura (*The Skanda-Purāṇa*, Kāśī Khaṇḍa, 6.25).
9. The reference to *Gangāsamudratire* in the *Matsya Purāṇa* (741.19) appears to be identical with Gaṅgā-Sāgar. The town has disappeared into the Bay of Bengal due to the frequent encroachment of the sea and destructive effects of terrific cyclones and a part of the populous town existed till the year, 1841 A.D., when it was completely and finally washed off in the following year (*Sircār*, 1960).
10. Jagannātha or Purī in Orissa.
11. Where the Pūrṇā in Surat District falls into the sea (Kāṇe, 1953), and has been identified with Prabhās (*Ibid.*).
12. The Kāśī-Khaṇḍa states : "Since in this city, there are entrance gates for all the four varṇas, it was named as Dvārāvatī by the learned. In Dvārkā-Māhātmya claimed to be taken from the Skanda-Purāṇa, it is stated that Mathurā, Kāśī and Avantī are easy of access (*sulabha*) but Ayodhyā, Māyā and Dvārkā are difficult of approach in the Kalī Age and the last one is called Dvārāvatī, because it is the way to *moksa* (Kāṇe, 1953). It has been identified with Barake of the *Periplus*.
13. The region around Nimsār on the Gomatī River, 72 kms. from Lakhanau (Lucknow).
14. This cannot be treated as modern counterpart of *forest* villages, as they are intended for the exploitation of forest resources.
15. The identification of Bāṣkala has not been possible. Can it be Bhatkal (14° N and 74° 32' E)? It may be noted that in this context, the name of Gokarṇa (15° 24'N - 73° 38' E) follows.

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10

Human Dwellings and Related Cultural Features in the Maha-Siva-Purana*

ABSTRACT

THE paper mentions at the outset the use of caves by human beings, before they could learn and construct artificial shelters by employing blocks of stones, wood, mud or earth and bricks. A number of terms bearing on the topic, such as *Graha*, *Geha*, *Samvāsam*, *Savagarham*, *Ālaya* and others has been explained and their significance expounded. Similarly, the designations of places of worship and associated cultural features have been culled out. A suggestion has been hinted at religious cultural landscape to contradistinguish it from other categories of cultural features.

The words, 'nirjan' (*MSP* : 400.45) and 'vijana' (*MSP* : 502.22) in the *MSP*, meaning uninhabited and several references to forests and forested tracts (*MSP* : 142.5; 300.17; 359.14; 499.3; 707.1) serve to indicate, without any shadow of doubt, that human settlements, including those concerned with religious activities, had a discontinuous areal distribution in the contemporary and preceding periods, with intervening patches or extensive blocks of thickly forested tracts.

Before Man had learnt to construct artificial shelters, he sought protection against the elements of nature in natural shelters, provided by caves. In the ancient India, natural shelters for human beings like cave-dwellings, normally, had been found in protected, remote and inaccessible localities of mountainous and hilly tracts or valley-sides with steep scarps. The reference in the *MSP* to a cave-dwelling of Nārada Munī in the Himālayan region cannot serve to reveal the general use of

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cave-dwellings in mountainous regions (*MSP* : 178.12) in the contemporary times (*MSP* : 125). The *MSP* mentions also a cave at Kāśi (*MSP* : 475.28). It cannot be ascertained with any degree of certainty whether there were underground caves in the plain of the Gangā.[1] However, there are allusions to cave-dwellings in the Sanskrit literature called 'Śilā-veśma' in the Meghadūta and in Kālīdās's Kumārsambhava, named '*Darīgraha*' (*Luders*, I.A. XXXIV, 199) and in the Ātpur inscription, there is a categorical referencc to '*Kandarā-graha*' (*Ibid*., XXXIX, 199). From the *Rg-Vedic* term '*Kumbha*', points out B.C. Law, 'Guhā' is a phonetic veriant in Sanskrit and Pali. The Sanskrit Lexicon, Amarkośa' (V.15) lists *devakhātu vila* (natural cavity in a rock) and *gahvarā* (hollow or hole) as synonyms of *guhā*. Two other cognate words cited in it are *darī* (grotto or crevice) and *kandarā* (cleft, split or fissure. (*Law*, 1952).

The *MSP* is entirely silent on the construction of rural dwellings made out of grasses, leaves and reeds, comparable to those mentioned in the Vedic literature and in the Jātaka Tales. The non-mention of such flimsy dwellings in the Purāṇa can be accounted for by its professedly religious character in which features other than religious could come into its focus of attention incidentally. Such flimsy dwellings,[2] it needs hardly to be told, have persisted through ages even till today, specially, in forested tracts.

The building materials, used generally for the construction of structures for worship, had been blocks of stones, wood, mud or earth and bricks (*MSP* : 739.12.3; 741.22). The same materials must have been also commonly utilised for the construction of domestic houses for temporal purposes.

A variety of words has been alluded to in the *Purāṇa* for mundane dwellings as follows :

1. *Graha* : (*MSP* : 107.10; 277.5; 361.27; 422.21; 740.18; 766.50; 950.32; 963.16; 970.74; 972.5).[3]
2. *Geha* ; (*MSP* : 249.38; 751.86).
3. *Samvāsam* : (*MSP* : 232.20) appears to be synonymous with a family house.[4]
4. *Svagraham* : (*MSP* : 358.5; 415.11; 622.31) my indicate that most occupants of dwellings were also their owners.
5. *Ālaya* : (*MSP* : 674.42; 725.44; 743.37) comprehends both temples as well as houses.[5]

Other connotative words for non-religious abodes are dhāma[6] (*MSP* : 359.13; 376.77; 511.12), *nilaya*[7] (*MSP* : 576.98; 727.51), *sadna*[8] (*MSP* : 687-27; 700.8) and *avāsam* (*MSP* : 741.22), frequently and commonly mentioned. The terms *niketana* (See *Supra*) (*MSP* : 668.5), signifying a mansion and *prasāda* (*MSP* : 662.23)[10], in particular, meaning a palace, are evidently indicative of substantial structures, generally found in urban areas and occasionally with a few honourable exceptions in rural settlements. The word, *swāsram* (*MSP* : 628.18; 715.20)[11] may suggest an abode constructed by its occupants. From the account embodied in the *MSP*, it may be gleaned that, ordinarily, dwellings had not been provided with latrines from the practice of attending the call of nature in the open, outside the dwelling places (*MSP* : 107.10). Similarly, all houses do not seem to have any arrangement for bathing, too, in them, as it is mentioned that a bather had to wade through water and stand in it, preferably, upto the neck-depth or waist-depth or in case of physical disability upto the knee-depth (*MSP* : 108.16-17). While describing the mode of daily worship of Śiva, it has been enjoined that it should be preceded by a water-bath in a river or natural lake (*devakhāt*) or at home (*MSP* : 972.5). Likewise, there is no specific reference to cooking rooms or kitchens in the *MSP*, though there is no explicit mention of cooking meals in the open, which must have obtained, implicitly, under enforced circumstances while on pilgrimage. Hence, even though a separate apartment might not have been found in all dwellings for this purpose, exclusively used as a kitchen, some part of a dwelling must, of necessity, have been used for cooking indoors.

The dwellings, mentioned in the *MSP*, seem to have been provided with courtyards, as indicated by the term, *grahāngaṇa* (*MSP* : 139.40), and also interior and secluded apartment or apartments for women-folk, suggested by the term, *antarpura* (*MSP* : 190.44), depending upon the size of a house and the opulence of the family concerned. *Lajjāsrama* (*MSP* : 662.23)[12] is a difficult term to be explained or interpreted. It can denote either an inner apartment of a family house, offering privacy to its inmates or, if it be a public place, it may convey the meaning of a house of a prostitute. A cow-shed or cattle-shed called *goṣtha* (*MSP* : 662.22; 812.48; 950.32)[13] must have formed an integral part of dwellings. There are frequent references to smearing of courtyards with cow-dung including those of temples (*MSP* : 156.6). Some dwellings seem to have attached large cart-sheds, referred to in the term, *mahāśakat-maṇḍapa*[14] (*MSP* : 682. 40) which by implication suggests that there must have also been small cart-sheds, forming a part of dwellings. At least, one verandah (*MSP : dehalyām* : 399.38) on the front of a house must have formed a part and parcel of each dwelling. The hole, known as *Ukhatana* (*MSP* : 399.38) in every house in some nook or corner for pounding grains for the removal of husks or polishing them, cannot remain unnoticed by a keen reader of the *Purāṇa*.

Besides the apartments, already mentioned, needed for the temporal life of human beings, there are specific references also to those needed for daily worship at home which find expression in such terms as *mantrālaya*, (*MSP* : 110.31), *pūjāgāra* (*MSP* : 207.30), *pujābhavana* (*MSP* : 693.18), *antarvedī* (*MSP* : 322.58) meaning inner altar and also *maṇḍapa* (*MSP* : 281.32, 34-35; 296.10) or temporary shade or structure, erected for a large religious gathering, invited at one's individual residence or at a public place.

We get also glimpses of doors (*dvāras* : (*MSP* : 207.32, 771.15; 965.30; 965.33) including those made of iron (*MSP* : 374.31), but no windows are mentioned.

Having noted the temporal buildings, it will not be inpertinent to dwell on the religious structures also.

Devālaya, meaning the abode of god, is manifestly a generic term for any place of worship, particularly, at a sacred spot of recognised sanctity (*MSP* : 52.34; 110.31; 139.40; 950.34) and the specific mention of *tīrtha daksintah* (110.31) suggests, most probably, the custom and practice of locating a temple to the south of a holy spot to face the north direction. *Devamandira* (*MSP* : 957.34) and *mandira* (*MSP* : 740.14-5; 744.39) appear to be two other generic terms for any temple. *Śivālaya* (*MSP* : 66.10; 86.40; 142.5; 604.27; 614.4) and *Śivāyatan* (*MSP* : 690.3) refer to shrines of Śiva, in particular, while Śiva-kshetra (*MSP* : 104.51) seems to denote an enclosure or precints around a temple of Śiva.

Matha (*MSP* : 110.31; 970.74) appears to be a building inhabited by devotees or monastery, attached to a temple. There appears to be a practice of having *pāthaśālās* or institutions of learning and education or schools attached to or existing in the vicinity of sacred spots or localities.

The shrines of Pārvati or Umā, referred to as *Srīmāturdhāma* (*MSP* : 740.24) or *Māturvāsam* (*MSP* : 741.21) as her abode, appear to be a concomitant cultural feature, as an outgrowth of the already well-established Śiva worship. It is of interest to note that usually shrines had *mandir-prāngaṇa* (*MSP* : 231.11) or courtyards or enclosures.

A brief reference has already been made to *maṇḍapa* (*MSP* : 281.55; 296.10, *Āpte*, 1890) or pavilions for ceremonial purposes such as *yagnas* or sacrificial purposes. At some places, the word *maṇḍapa* seems to have been used as an equivalent term for *maṇḍala* (*MSP* : 615.5; 963.15; 964.19; 646.38; 976.16; 774.22), that is, a charmed circle drawn by a conjurer or with the connotation of *pujāmaṇḍala*, *namely*, the ceremonial circle for a particular mode of worship, dwelt upon elaborately in the *Purāṇa* which need not detain us, since it cannot fall under the category of cultural features of religious landscape.

In addition to the cultural features cited above, bearing directly on religious beliefs and activities, there were other distinctive cultural features worthy of note. They included *lokottarasukhālayas* (*Āchārya* 1927) or pleasure houses (*MSP* : 578.103), lokagraha (*Ibid.*) or gardens (*MSP* : 104.50; 690.3; 950.33) and *vihāras* (*MSP* : 184.16, *Āpte*, 1890) or parks or gardens, especially pleasure gardens. The provision or building of wells, reservoirs and tanks has been acclaimed as the gift of water and regarded as the supreme and highest order of piety (*MSP* : 700.8-14).

To earn religious merits, it has been urged in the *Purāṇa* to build Śiva shrines at holy or sanctified spots. (*MSP* : 744.39-42). This must have induced pious and religious minded persons of opulence to multiply the existing number of temples, as this belief still has not lost its hold on the minds of devoted Hindus, resulting in the expansion of the existing cultural features.

In a nutshell, the multiplication of Śiva shrines and associated features, constituting a category by themeselves, must have effectually modified the pre-existing cultural landscape to a marked degree recognisably, when preserved in tact from destructive forces of nature and also brutalities of human beings. These may be collectively called religious cultural landscape to distinguish and differentiate it from other categories of cultural landscape.

NOTES

1. The recent archaeological finds in the vicinity of Vārāṇasī reveal underground 'cells' beneath ancient houses.
2. *V.I.,-I*, 230, it is used in the singular (*Rgveda.*, iii, 53.6; iv. 49.6; viii. 10.1 etc ; *Atharvaveda.*, vii. 83.1; x. 6.4; *Aitareya Brāhmaṇa*, viii. 21; and oftener in the plural to denote the 'house' of the Vedic Indian. It is stated in *V.I.* (I, 23) that the roof was formed of ribs of bamboo cane (*kamśa*), a ridge called *Vasuvant*, and a net (*Aksu*) which may mean a thatched covering over the bamboo ribs. It seems likely, as the ribs were of bamboo and were fixed in the ridge, the roof was wagon-headed like the huts of the Todās of the present day. (*Rivers* : The Todās, 25, 27, 28, 51) and the rock-cut *Chaityas*, or Assembly Halls, of the Buddhists in Western India, some of the earliest of which the wooden ribs of the arched roofs are still preserved. (*Fergusson* : History of Indian Architecture, II, 135, *Cf.* 126). The walls were filled up with grass in bundles (*palada*), and the whole structure was held together with *tus* of various sorts (*nahana*, *prāvadha*, *samdanisa*, *parisenjaliga*) (*Atharvaveda*, ix. 3, 4.5). Reedwork (it) is spoken of, no doubt, as a part of the finishing of the walls of the house (*Atharvaveda.*, ix. 3; 17; *Cf. Zimmer* : Altindisches Leben, 145-156).
3. 492. This term stands for a hall, room, or house or habitation.
4. 'Vāsam', according to *V.S. Āpte*, is abode, a habitation, house, a hall where public exhibitions (such as wrestling matches, etc.) are held and also includes sacrificial hall. (963).
5. A dwelling place, abode, residence, house, resort (*Āpte*, 1890, 576); *Epigraphica Indica :* VI. 114; 123 (Mangalgirī Pillar Inscription).
6. Means house, residence, abode (*Williams*, 1899).
7. Rest, resting place, hiding or dwelling place, den, lair, nest, home, residence, abode. (*Ibid.*).
8. A mansion, house. abode (*Ibid.*) The two words with the suffix 'sadana', *namely*, mitra-sadana, meaning friend's house (*MSP* : 700.8) and bālukā-sadana (*MSP* : 687.27), signifying literally a house of sands, perhaps, conveying an impression

of a flimsy structure or merely a heap of sands are worthy of note. In *V.I*, I. 483, 'Patninām Sadana' (In *Atharvaveda*) presumably denotes the women's quarters.

9. A palace, an edifice, a temple, a platform, a Buddhist hall of assembly or confessional hall (*Āpte*, 1890, 776).
10. A place, mansion, any large palatial building (*Āpte*, 1890). In the Vedic Index., II. 51, it is stated that the word does not occur in the sense of 'palace' until the late *Adbhuta Brāhmaṇa* (Indische Studies, 1.40).
11. In *V.I.*, 1.68, it is synonymous with the place of rest. (See also *Svetaśvatara-Upanisad*, 6.21, *Maitrayāṇī-Upanisad*, 4.3). It had been a place of dwelling for a celibate or house-holder, used for studies, rearing a family and for Yogic practices.
12. *Lajjikā* connotes prostitute (*Bahadur*, 1961).
13. According to *V.I.*, I. 240, standing place for cows, denotes not so much a 'cowstall' as the 'grazing ground of cows' as *Geldner* (*Vedische Studies*, 3, 112, 113) shows from a passage of the *Aitareya Brāhmaṇa* iii. 18.14) and from a note of *Mahīdhara* on the *Vājasaneyī Samhitā* (iii.21). The sense suits adequately all the passages of *Rg-Veda* (i.191.4; vi.28.1; viii.43.17), where it occurs, and it greatly improves the interpretation of a hymn of the *Atharvaveda* (iii. 14.1.5.6., where *Whitney's* rendering 'stall' is very unsatisfactory, and *Bloomfield's* 'stable' is no better), besides being acceptable elsewhere (*Atharvaveda*, ii. 26, 2; *Vājasenyī Samhitā*, iii. 21; v. 17; *Satpatha Brāhmaṇa*, xi.8, 3, 2, etc.; *Kathaka Samhitā*, vii.7; *Mainayānvī Samhitā*, iv. 2.11).
14. This is a rare word in the older literature for a 'cart'. (Vedic Index., II. 345; *Nirukta*, vi, 22; xi, 47; *Chāndogya-Upanisad*, iv.1.8).
15. Most probably, found generally in the houses of religiously devoted brāhmaṇs, where the occupants chanted religious '*mantras*' or charms.
16. *Puja-bhavan* and *Pujāgara* could be found in the houses of all castes, as they were also permitted religious worship of Śiva.
17. In the text, it occurs in connection with the destruction of wells, vāpī (well with steps), temples, gardens, etc., which has been referred to indisparaging terms, with liability of the culprit to be condemned to hell for such misdeeds and sins.

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MSP in the body of the text is the abreviation of MAHĀ-ŚIVA-PURĀṆA and numerical figures in brackets refer to page number/numbers and verse number/numbers.

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11

Life of the People as Depicted in Maha-Siva-Purana*

THE manifold occupations noticed in the *MSP* may be discussed in the sequence of those concerned with food, shelter, clothing and others.

(a) *Food*

It need not be emphasized that agriculture constituted the mainstay of the people in the contemporary period, not unlike that of the present day. The crops alluded to in *MSP* may be classified into (i) Cereals, (ii) Leguminous crops, such as a number of pulses, (iii) Vegetables and fruits and (iv) Others. A brief discussion can serve to throw light on the various products of agriculture and horticulture, available in those days. Leading cereals were rice, variously called *Tandula* (*MSP* :116.73; 210.56; and 1006.36), *Vrīhi* (*MSP* : 139.41) (*V.I.* I. 26, 237 & 398; *V.I.* II, 56; *Kāngle*, 2.24.12) and *Śālī* (*MSP* : 962.6) (*V.I.*-II, 376) and also wild rice known as *Nivāra* (*MSP* : 962.6) *V.I.*-I, 182 & 457; *Kāngle*, 2.24.12 *Godhum* or wheat (*MSP* : 221.57 and *Java*/*Yava* or barley (*MSP* : 221.51 616.66; 689.62; 785.7; 980.28 & 981.33) (*V.I.* I, 26, 398; *V.I.* II, 187 & 345; *Kāngle*, 2 24.14). Rice and barley were not only used as food-stuffs but also in religious ceremonies, as they were regarded sacred for this purpose and were also available in profusion with ease. The names of millets are conspicuous by their non-mention in *MSP*, perhaps, because they were not in use for religious purposes.

The pulses have been observed to be difficult to digest and are referred to as *garistha dvidala* (*MSP* : 72.9). The pulses include Caṅam (*MSP* : 169.8 & 173.39) (*Watts*, 1908) or horse gram (*Cicer arientinum*), *Māsaka* (*MSP* : 221.57) (*Kāngle*, 2, 24.13 : *Māsa*) or *Urada* (*Phrāleclus Radiatus*), *Masūrikā* (*MSP* : 72.9) (*V.I.* I, 182) (*Kāngle*, 2.24.13) and *Mudgam* (*MSP* : 221.57) (*Kāngle*, 2.24.13) or *Masura* (*Ervum Hirustum*)

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* Revised, modified and reset from the Quarterly Journal of the Mythic Society, 58/3, Oct., 1967.

(*MSP* : 221.57), and *Munga* (*Phralesclus Mungo*). Other agricultural products alluded to are *Tila* (*MSP* : 120.21; 121.27; 221.5; 399.42; 608.52; 665.46; 685.14; 686.36; 697.50; 974.62 & 980.28) (*V.I.* I, 312) (*Kāngle*, 2.24.12) or sesame (*Sesamum Indicum*)[3] with its black-coloured species, also used for the extraction of edible oil and religious ceremonials and also as an item of diet. *Siddārtha*, (*MSP* : 963.10) or *sarson* or Indian Coiza of white colour (*Brassica Campesteris Linn*), *Iksu* (*MSP* : 686.23) (*V.I.* I, 46 & 74) or sugarcane used also for religious offerings, *Haridra* (*Curcuma Longa Linn*)[4] (*MSP* : 380.21) or tumeric and *Tāmbūla* (*MSP* : 100.26 212.70; 222.67; 606.56; 849,29; 894 5 & 940.5) or betal leaves (*Piper Betal*, *Linn*) used most commonly for religious purposes.

The vegetables are mentioned under generic terms : *Śāka* (*MSP* : 665.46) and Mūlaka (roots) (*MSP* : 72.10) and specific names embody *Vātārka* (*MSP* : 72.10) or brinjals (*Solanum Meloncena*)[6], *Palāndu* (*MSP* : 72.10 & 172.34) (*Watts*, 1908) or onions (*Allum Cena, Linn.*), *Pichanda* (*MSP* : 72.10) or snake gourd (*Trichosanthes Anguina*), *Kūsmānd* (*MSP* : 72.10) or pumkin gourd (*Cucurbita Pero*), *Laśuna* (*Allum Sativum*) or garlic (*MSP* : 72.10), *Mūla* or Radish (*Raphanus Satiūus*) (*Ibid.*), *Grahana* (*Ibid.*) or carrot (*Daucus Carots, Linn*), *Tumba* (*MSP* : 590.106), or long gourd (*Lagonaria Vulgaris*), *Sigru* (*MSP* : 172.36) *Moringa Pterygosperma*) or drumsticks or known as Snejana in Hindi, and *Slesmantaka* or ginger (*Zingiber officianate*) (*MSP* : 172.36). Pulses like Masura and vegetables such as onions, garlics, carrots, drumsticks and ginger were regarded as taboos for any brahmana, engaged in religious ceremonials or during the period of vow (*MSP* : 72.36-37; & 172.36), though brinjals were permissible occasionally.

Several fruits, referred to in *MSP*, are *Dādima* (*MSP* : 610.67) or pomegranates (*Punisa Granatum*) (*Watts*, 1908), (*MSP* : 610.63) (*Citrus Decumana*)[7] or *biajauro*, meaning seeded lemon, *Nalikera* (*MSP* : 72.10) or *Srīphala* (*MSP* : 609.56 & 627.65) or coconut (*Cocos Nucifera*), *Kadalī* (*MSP* : 66.12) or plantain (*Musa Sapientum*)[9] and Āmra (*MSP* : 139.43 & 848.26) or mango fruit (*Mangigera Indica*).[10]

As cattle-rearing is a very closely allied occupation to agricultural activities, the former may be treated as an integral part of the latter. Several allusions to pastures (*MSP* : 657.29 & 658.37), cow-sheds (*MSP* : 662.22), cows (*MSP* : 609.50; 616.16; 656.28; 694.26; 708.9; 710.22; 714.7 & 950.35) and bulls (*MSP* : 656.28) point to the conclusion that cattle-rearing has been active and important occupation. Cows were held in reverence and kindliness and it was urged to offer due protection to them against inhuman cruelty (*MSP* ; 663.31-32 & 664.4). The custom of offering cows, particularly also with calves, to brahmanas in gift during religious ceremonials was in vogue (*MSP* : 616.16). *Ghee* or clarified butter (*MSP* : 71.6; 144.21; 227.17; 686.1; 744.43 & 813.84), *Navanīta* or butter (*MSP* : 101.31),[11] Milk (*MSP* : 144.20; 813.94 & 915.29) and its products and curds (*MSP* : 144.20; 813.94; & 915.29) not only entered into items of daily diet but were also used for offering to deities in religious worship and ceremonies. The *ghee* of a tawny cow had been believed to possess certain special merit in religious ceremonials (*MSP* : 129.29). Cow-dung had been in use for smearing court-yards of houses (*MSP* : 156.6) and temples (*MSP* : 744.38) and bathing places on river-banks (*MSP* : 972.6).

(b) *Shelters*

From the narrative embodied in *MSP*, it is manifest that for the construction of Śiva shirnes blocks of stones, earth or mud and wood were utilised as building materials (*MSP* : 739.13 & 741.22), which must have been also in common use for erecting temporal abodes. The building activities of Śiva shrines and small ordinary or substantial structures in rural and urban area must have been a distinct source of employment to stone-cutters, stone-masons, other masons, wood-workers or carpenters and similar individuals, engaged in the construction of houses and shrines (*For details refer Essay 10*).

(c) *Bodily Covering, Clothing and Garments*

It appears that *maunji* grass (*MSP* : 351.29) *Saccharum Arundinaceum Reta*) and barks of certain trees (*MSP* : 352.29 & 543.8) were used to cover the human body, particularly, in remote and inaccessible localities, isolated from culturally advanced tracts, besides the use of skins (*MSP* : 501.14) of animals, such as tiger[12] (*MSP* : 208.38; 226.43; 428.4; 543.5; 551.26; 556.21; 587.130; 774.1 & 791.59), elephant (*MSP* : 220.46) and deer (*MSP* : 216.17; 351.30; 766.52; 815.12; 847.17 & 915.30). A large variety of textiles covers coarse and fine cloth (*MSP* : 666.49) of variegated colours (*MSP* : 972.13) of *Kārpās* or cotton, of *Auṣṇṇa* or wool and of *Kauśeya* or silk (*MSP* : 666.49).[13] The garments mentioned are Kaupīna (*MSP* : 767.58; 812.82; 823.76-77 & 850 36), *Dhautapata* (*MSP* : 811.79) or Dhoti, *Ancala* (*MSP* : 493.64) implying rinsing cloth or napkin, *Usnīsṣi* (*MSP* : 951-37) or turban,[14] *Uttariyaka* (*MSP* : 940.4 & 951.37) or *dupattā* or cloth thrown round the neck and *Kuncaka* or *Kancuki* (*MSP* : 951.15 & 951.37), meaning the bodice, and Knee-high cloth or *panca*.

Under the categories of textiles may be classed also *Sutraka* or *Sutra* (*MSP* : 73.18; 464.3; 770.5 & 963.12) or yarn and *Dora* (*MSP* : 612.82) and *Rajju* (*MSP* : 134.8; 672.32; 673.35-36; 688.35 & 689.35) or rope.

After this, it will be pertinent to deal with other occupations as follows :

(d) *Mining*

The occurrence of the names of several minerals and precious and semi-precious stones indicates quite a rich variety of products of mines such as *Āyas* (*MSP* : 977.1 & 979.16) or *Lohita*[15] (*MSP* : 507.79) or iron, *Tāmra*[16] (*MSP* : 666.47; 686.18 & 691.79) or copper, *Sisa* (*MSP* : 666.48 & 691.7) or lead.[17] *Trapu* (*MSP* : 666.47 & 961.9)[18] or tin, gold variously called *Parthivi* (*MSP* : 219.31), *Sauvarna*[19] (*MSP* : 188.16 : 382.23; 645.29 & 646.25), *Hiraṇya* (*MSP* : 569.73), *kāchana* (*MSP* : 957.26), *Vasureta* (*MSP* : 577.101) and *Suvarna* (*MSP* : 965.34), *Rajata* (*MSP* : 218.31; 646.24 & 658.36) or silver[20] and lastly, *Parada* (*MSP* : 218.31) or quick silver. The explicit reference to the rich variety of several kinds of precious stones (*MSP* : 392.21 & 393.6) are worthy of note and interest with allusion to navaratnāni (*MSP* : 140.44 & 820.53) or nine kinds of precious stones[21] which indude the specific mention of *Śuddha Sphatika* (*MSP* : 196.6; 201.37; 288.35; 427,3; 790.48; 803.66 & 820.5) or pure crystalline quartz, *Nila* (*MSP* : 140.44) or sapphire, *Mani* (*MSP* : 464.2; 661.6 & 861.6), *Vidruma* (*MSP* : 555.35; 793.24; & 861.6) or coral and *Vrajabharaṇa* (*MSP* : 779.35) or diamond. All these seem to have been used for making jewellery and ornaments. Iron had been in extensive use for making domestic articles, pots and utencils, not unlike copper including the alloy of brass (*Ārkuta* : *MSP* : 691.9) and bronze, *Kānsya*, (*MSP* : 979.16). The sea is regarded as "source of excellent gems". (*MSP* : 75.7), *ksars* (*MSP* : 646.23; 692.13 & 693.20) or salts and alkalis were known and in use. Gold and silver articles and pots for domestic and religious ceremonials are also alluded to.

(e) *Machines and Appliances*

A few notices of simple machines (*yantra*) (*MSP* : 828.15) and appliances are also found such as *Draṣada* (*MSP* : 399.31) (*VI.* 1.94; 373-74) or stones for grinding grains and cereals, *Taila-yantra* (MSP : 685.13) for extraction of oil, *Ikshu-yabtra* (*MSP* : 685.13) for crushing sugarcanes, *Ghati-yantra* (*MSP* : 722.25) or time-reckoning machine of appliance, *Tulā*[22] (*MSP* : 226.8 & 703.29) or balance for weighing, *Didk-cakra* (*MSP* : 731.24), manufactures of which must have served as occupations of at least a few people in the preceding and contemporary times.

(f) *War Weapoms*

The complete list of weapons such as discs (*MSP* : 303.39; 457.38; 489.40; 48).42 & 490.47) (*Apte*, 1890), bows and arrows (*MSP* : 337.29; 454.17; 515.37; 589.11; 590.15; 620.18 & 625.51), cudgels (*MSP* : 318.28; 432.138 & 455.15), swords (*MSP* : 307.7; 322.59; 449.21 & 453.11-2), javelins (*MSP* : 316.11; 318.30; 457.17; 584.123 & 593.27) and their repelling weapons or defensive weapons, in addition to protective armours, made of leather (*MSP* : 453.12) and other materiala (*MSP* : 477.43; 584.123 & 783.64) cannot be mentioned here for consideration of space. The manufācture of war weapons and actual warfare must also have two other distinct occupations.

(g) *Musical Instruments*

The making of musical instruments and appliances must have been a source of employment for making a living for some individuals, as can be evidenced from their variety mentioned in *MSP*, such as *Mradanga* (*MSP* : 238-42) or a kind of drum or taber (*Ibid.*), *Pataha* (*MSP* : 238.62) or cattle-drum, *Vipancī* (*MSP* : 238.42) or Indian lute (*Ibid.*), *Tantrikā-matta* (*MSP* : 238.62) or lute, *Tumbavīṇā* (*MSP* : 579.106) or lute, mounted on a gourd. *Bherī* (*MSP* : 295.37) or cattle-drum (*V.I.* I-13; *Rg-Veda*), *Sranga* (*MSP* : 295.37 & 662.24) or a kind of drum, *Dudhnbhī* (*MSP* : 367.10) or a kind of drum seems to be musical instrument used on war fields and *Damaru* (*MSP* : 386.41 & 454.10) or hourglass-shaped small drum generally used by *Kapilakas* and counch (*MSP* : 295.37; 367.6; 383.41; 439.33; 666.78 & 777.43), both for religious worship as well as on occasions of warfare. In a nutshell, musical instruments and appliances may be classified into *three* categories, *namely*, those used for private or public music, for religious ceremonials and military purposes.

(h) *Footwears, etc.*

The manufacture and sale of two varieties of footwears have been mentioned, *namely*, *Pādukā* (*MSP* : 215.5 & 859.47) or wooden footwears and *Upāna* (*MSP* : 666.47), or shoes or sandals and *Chhatra* (*MSP* : 263.39; 387.44; 500.9 & 666.47), denoting parasol or umbrella for protection against the Sun, *Camara* (*MSP* : 263.39 & 387.44) or fly-flap or fan.

(i) *Transport Services*

The manufacture and the sale of conveyances, vehicles and appliances for transport services such as *Ratha* or chariots (*MSP* : 93.13; 290.6; 392.23; 429.8; 439.31; 443.18; 450.25; 454.18; 493.60 & 493.62), Syandana (*MSP* : 315.2) or war-chariot, *Yāna* (*MSP* : 435.3), *Śakata* or cart (*MSP* : 666.47 & 682.40) and *Jala-marga* (*MSP* : 620.50) or water routes used for navigational purposes and their maintenance by owners for necessary as well as goods traffic and the use of bullocks and elephants must have kept quite a large number of persons engaged in this group of occupations.[23] At least since the period of the *Purāṇa* (*MSP* : 664.38), if not earlier, sea voyages seem to have been discovered and looked down (*Manusmriti*, *Kāṇe*, 1963) though sea-coast had been recognised as sacred everywhere (*Vayu-Purana* in *Kane*, 1963).

(j) *Articles of Religious Worship*

Some persons were dependent on the manufacture and the sale of articles of worship, enumerated in the *MSP*, such as *Gandha* (*MSP* : 145.25; 149.16; 209.43; 396.38; 785.6 & 853.34), *Sugandha* (*MSP* : 972.3) or pleasing fragrance, *Divyagandha* (*MSP* : 792.30; 796.74 & 975.32) or extra-ordinary fragrance, *Gandhya-toya* (*MSP* : 974.24) or fragrant water, *Sungandha-dhupa* (*MSP* : 212.70; 218.29; 848.21; 849.31 & 859.41), *Sindura* (*MSP* : 217.25; 777.18 & 779.35) or red lead, *Gugula* (*MSP* : 222.63)[24] or bdellium, *Nava-gugula* (*MSP* : 139.42) or fresh bdellium, *Snigdhanilanjana* (*MSP* : 231.9) or oily or greasy antimony (?) *Nilanjana* (*MSP* : 675.50), antimony or blue powder (?) *Kalanjana* (*MSP* : 677.57) or callyrium or vitriol (?), powder *Mahacurṇa* (*MSP* : 682.38) or aromatic powder, sandals of several kinds including *Candana* (*MSP* : 208.41-2; 223.10; 859.46; 917.47; 969.59; 963.14; 965.30 & 974.22), *Gandha Candana* (*MSP* : 210.12; 211.2; 212.66; 218.229; 381.3; 608.52; 611.70; 782.2 & 976.43) *Rakta-Candana* (*MSP* : 974.24) or red sandalwood, *Rakta-Curṇa* (*MSP* : 974.22) or red powder, *Kesara* or Saffron (*MSP* : 778-23) *Vāsitam Taila* or fragrant oil (*MSP* : 215.9 & 222.63) and *Sarsapa taila* or mustard oil[25] (*MSP* : 215.10), *Kastūrī* or musk (*MSP* : 658.37) and *Agaru* or fragrant aloe wood (*MSP* : 222.63). *Panca-dravyas* (*MSP* : 339.43), used in religious worship or ceremonials, are elaborated by the translator of the *Purāṇa* to include *Launga* (cloves), *Kankola* (*Alangius Serratum*), *Agara* (*Andropogon*), *Jāyaphala* (nutmeg) and *Kapūra* (camphor) (*MSP* : 140.44-45).

(k) *Production of Miscellaneous Goods*

A few more items of production and their sale and supply almost completely exhaust their list embodied in the *Purāṇa*. These are rods or sticks (*MSP* : 500.9; 501.13; 787.8; 812.82; 823.76 & 824.18), poisons (*MSP* : 683.42) fans of palm leaves (*Tālvrattam*, *MSP* : 982.42).

(l) *Services, Professions and Professionals*

It may be pointed out that the *Purāṇa* enjoins the mutually exclusive occupations of the *four* castes in the Hindu society with a view to avoid unhealthy competition and to maintain harmony, amity and goodwill among them (*MSP* : 661.58 & 841.12-13). However, the exclusive occupation of each caste was not strictly observed in practice.

The categorial references to *Bheṣaja* (*MSP* : 212.69 & 791.45) (*Law*, 1952), *Bhiṣgvara* (*MSP* : 188.31), *Bhiṣaga* (*MSP* : 598.19), Vaidya (*MSP* : 666.48 & 907.24) and medicines (*MSP* : 332.2 & 658.36) indicate that there were physicians and medical practitioners, authorised dealers of medicines and drugs, besides musicians (*MSP* : 605.35; 611.74; 616.12 & 964.25), *Vaitālikas* or bards (*MSP* : 407.7),[26] singers of devotional songs (*MSP* : 635.17 & 640.15), instrumentalists[27] (*MSP* : 414.50), dancers (*MSP* : 558.45 & 964.28), painters and artists (*MSP* : 510.4), sculptors (*MSP* : 98.10 & 962.2), astrologers (*MSP* : 65.3),[28] garment-washers (*MSP* : 393.36), warriors (*MSP* : 408.11), including archers (*MSP* : 510.4 & 552.30),[29] money-lenders (*MSP* : 740.10) and dommestic servants (*MSP* : 386.24; 392.22; 508.58; 604.23 & 745.50).[30] Only two occupations of females are referred to, *namely*, nursing (*MSP* : 915.32 & 982.43) and prostitution (*MSP* : 48.8).

In conclusion, it may be summarised that the cultural level reached by the Indian society described in the *Purāṇa* exhibits features of not merely bare minimum of *three* essential requisites of human life food, shelter or bodily covering, but it had advanced towards participation in its enjoyments and pleasures, with a few exceptions, and aimed at higher ideals and noble and lofty goal of spiritual piety, enshrined in the expressive term 'Bhukti-Mukti', occurring several times in the *MSP*.

NOTES

1. *V.I.* 1.279. It is claimed that rice cultivation began earlier in India than it did in China and the knowledge reached the latter country by way of the Yangtze to make its appearance in the Chinese Bronze age, about 2000 B.C. (Piggoit, 1950).
2. *Roth* considers it to be equivalent of *sari* in the word of *sarisale* in the *Athaveda* (*V.I*-1, 345).
3. The observation made in "*The Commercial Products of India* "by Sir George Watts that *Sesamum Indicum* must have been important 300 years earlier than Akbar's time dose not appear to be well-founded, since there are references to it in the *Vedic* times of the ancient Indian History.
4. Turmeric is regarded by some botanists as a native of India, but the finest qualities were introduced from China or Cochin-China (Watts, 1908).
5. The natives of India and Indo-Chinese countries have from remote times been in the habit of chewing leaf (*Ibid.*).
6. A native of Kāśmīr and Western Himalayas at an altitude of 1522-2743 metres (*Ibid.*).
7. It is incorrect to say that *Citrus documana* has no Sanskrit equivalent, as it can be confirmed from the citation incorporated here.
8. Sir George Watts observes : "It is known by so many diversified names in the regions of present production as to necessitate a vast antiquity. But as possibly indicative of a stranger claim for an Atlantic than American origin, derivatives from Sanskrit name, *Narikala* have accompanied the palm eastward very nearly to the shores of America and westward to Madagascar and Turkey (*Watts*, 1908).
9. Sir George Watts claims that *Musa* or *Amusa* is derived from the *Mochā* (*Ibid.*).
10. The mango has been cultivated all over India from a very remote epoch (*Ibid.*).
11. Three words occur in the *Purāṇa* in connection with *Ghee*, *namely*, *Ājyam*, *Grata* and *Sarpis* with a subtle distinction in the use of terms as follows :

(१) आज्य धर्मोदमेन.

(२) सर्पिविक्तिनमाज्य स्याद् घनीभूतं घृतं भवेत.

(Apte, 1890)

(3) *Sarpis* in a wider sense, oil, milk, etc., used instead of clarified butter.

घृतं वा यदि वा तैलं पयो दधि यावकं
आज्यास्थाने नियुक्तामाज्य शब्दो विधियते

(*Ibid.*)

12. In *V.I.* 1 *Ajina* denotes generally the skin of an animal, *e.g.*, gazelle (*Atharveda*, V. 21.7) as well as that of goat (*Aja*) (*Satapath Brāhamaṇa*, V. 2.21, 24). The use of skin as clothing is shown by adjective, 'clothed in skins' (*ajin vasin*) in the *Satapatha Brāhmaṇa* (III. 9.1, 12) and furrier's trade is mentioned in *Vajasenyī-Samhitā* (9.15, *ajina-samdha*), *Taittariya Brahmaṇa* (II. 2. 13, *ajina-sudhya*). The Maruts also refer to 'deer skins' (*Rg-Veda*, I. 136.10) and wild ascetics (*Munis*) of the late Rg-Veda hymn (X.136.2) (Cf. *Zimmor* : Altindisches leban, 262) seem to clad in skins (*Mala*).
13. पट्टवस्त्र (*Psltavastra*) (*MSP* : 45.35 & 658.37) may also refer to silk or woven coloured cloth (*Apte*, 1890).
14. Denotes the turban, worn by Vedic Indians, men and women (*Aitareya Brāhmaṇa* VI, *Satapath Brāhmaṇa* (III. 3.23, IV. 2.1, 8) Indrayani's *usnīṣa*, etc., *Kathaka Samhitā* (XIII. 10). The Vratya's turban is expressly referred to in the *Atharveda* (XV. 2.1) and *Pancavimsa Brāhmaṇa* (XVII. 1.14). A turban was also worn at the Vajpeya (*Satapatha-Brāhmaṇa* V. 3, 5, 23) and *Rājsūya* ceremonies (*Maitraveni-Samhitā*, IV. 4.3) by the king as a token of his position.
15. The exact metal denoted by this word, when used by itself, as always in the *Rg-Veda*, is uncertain (*V. I.* I. 31).
16. In the *Vājsaneyi Samhitā* Loha is symonymus with copper (*V. I.* 1.31).
17. Occurs first in the *Atharveda* (*V. I.* I. 452, II. 234).
18. In the *Vājsaneyī Samhitā*, *Ayas* is enumerated in a list of six metals; Gold (*Hiranya*, *Ayas*, *Loha*, Lead (sisa), Tin (*V. I.* I.31, II. 234).
19. In the *Rgveda* and later denotes gold (*V. I.* II. 504-5).
20. *Rajata* as an adjective with *Hiranya* designates silver. (*V.I.* II. 197).
21. *Ratna* in the *Rgveda* and later it denotes a precious object, not specifically a 'jewel' as in the *Post-Vedic* literature (*V.I.* II. 199).
22. A 'Scales' is mentioned in the *Vājsenyī Samhitā* (XXX. 17) (*V.I.* I. 37).
23. It is quite interesting to note that the *Purāṇa* mentions a '*Vāyu-Vahāna*' or 'air-vehicle' (55'.29) and *Vimāna* or aeroplanes (442.18, 632.94; 705.33 and 708.12).
24. Occurs as *Guggulu* in one passage in the *Atharveda* (XIX. 38.2) (*V.I.* I. 228).
25. Denoting 'mustard' or 'mustard-seed' occurs only a few times in later *Vadic text* (*V.I.* II. 459).
26. *Vādita* is found denoting 'music' in the compound '*gitavādita*, 'song and music' in the *Ghāndogya Upanishad* (VIII. 2.8) and uncompounded in *Kaushikī Brāhmaṇa* (XXX. 5) along with *Nrtya* 'dance' and '*Gita*' and '*Vādita*' (*V. I.* II. 381).
27. The word, 'silpa', does not occur in the sense of sculptor in the *Vedic* literature, but refers to *Nrtya Vādita*.
28. The word, 'Daiva', conveying the sense of the knowledge of portents, 'occurs in the *Vedic* literature' (*V. I.* I. 380) but the word '*Daivagna*' does not seem to occur.
29. *Yuddha* in the *Rgveda* and later denotes 'battle'. (*V.I.* II. 194).
30. *Dasya* occurs once in the *Brahadāraṇyaka Upanishad* (IV. 2.30), *Mādyamdina* (Kaṇva) in the sense of slavery, (*V.I.* I. 359). The words, 'dāsa' and 'dāsī' indicate that they were both male and female slaves.

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12

Historical Geography of Malik Ambar's Territory*

ABSTRACT

THE paper starts with the partitioning of the Nizamśāhī territory and its persistence, after the attack on it by the Moghuls. It further attempts an exposition of its maximum areal extent, impact of contempory geo-politics in the Deccan, the lack of well-defined territorial sovereignty and inviolability, boundaries of the state, their functions, disputes, including village boundary disputes, neucleus and core of the state, shifts of capitals, frictional zones, population characteristics, geo-strategy, etc. In its section on Geo-economics, delineation of agricultural produce, animal-rearing, industries, miscellaneous occupations, rural marketing, urban centres and routes, pilgrim and religious centres have been incorporated.

I. POLITICAL GEOGRAPHY

(i) *Introduction*

Malik Ambar was the Nizāmśāhī Premier from 1600 A.D. till his death in May, 1626 A.D., who had raised to the Nizāmśāhī throne Murtaza Nizamśāh II in 1600 A.D , after the fall of Ahmadnagar in the month of August of the same year, with the first seat of capital at Parendā (Briggs-III, 1910) transferred within a year to Ausā. Aftar the death or confinement of this monarch in 1610 A.D. (*Rogers*, 1909), Ambar raised to the vacant throne a minor prince, known in history as Burhān Nizāmśāh III. The towering, powerful and agressive personality of the saviour of the Nizāmśāhī kingdom from extinction and annexation into the Moghul empire so much eclipsed the governing sovereigns that to the contemporary people and even the Portuguese and other foreigners as early as 1601 A D., the remnants of the Nizamśāhī territory came to be known as "the kingdom of Mallique", (*Monques de Reino*, 1601-2) though he was merely "the petty chief of Chaul and Dabull (Dabhol) (*Ibid*; 1595-78) in 1596 A.D. *In other words*, Ambar was the *de facto* ruler, while the sovereigns were the *de jure* supreme authority who exercised nominal power in practice.

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As Akbar's policy of the direct attack on the trunk of the Nizāmśāhī kingdom by his capture of Ahmadnagar did not lead to the surrender of the whole dominion, the imperialists directed their efforts against the major and minor pockets of resistance in it by resorting to its encirclement by their invasion and attempts to seize on its eastern frontiers in Telanganā against Malik Ambar and the territory in the proximity of Daulatābād and Nāśik against Ambar's determined adversary, Miyā Rājū and the capture of scattered and isolated places in the dominion.

(ii) *The Territories Shared by Malik Ambar and Miya Raju*

About the year 1600 A.D., Malik Ambar and Miyā Rājū in spite of the Moghul forces retained almost the whole of the Nizāmśāhī dominion (*Briggs*-III, 1910). Evidently, the military triumph of the Moghuls failed to have made its desired impression and effect on the Nizāmśāhī kingdom.

Malik Ambar possessed the country "from the Kutbśāhī and Ādilśāhī boundaries, as far as within one coss of Beer (Bīr), and four of Ahmadnagar, as from eight coss west of Daulatābād to within the same distance of the port of Chaul", while Miyā Rājū possessed "Daulatābād as far north and south as from Gujrāt frontier to within six coss of Ahmadnagar" (*Ibid.*).

From the above excerpt two indisputable conclusions emerge as follows :

1. The Moghuls had succeeded in the initial stages of their invasion of the Nizāmśāhī kingdom in driving a wedge into it with little avail which was followed by the strategy of its encirclement and extinguishing isolated and scattered pockets of existing resistance to the Moghul authority.
2. The western littoral near Chaul and Dābhol in the north Kokaṇa passed away from the control of the Nizāmśāhī kingdom, prior to 1600 A.D. (*Bendre*, 1967), of which Ambar was the petty chief in 1596 A.D. This cut off access to the sea on the west and rendered the Nizāmśāhī kingdom at least

temporarily into a landlocked state which further served to effect almost complete encirclement of the kingdom.

By 1619 A.D., Kalyāṇ and Bhivandī river ports close to the Ulhās river seems to have been well within the territorial limits of Malik Ambar. Bassein, at the mouth of the Ulhās river, was under the control of the Portuguese.

It remains to investigate the reason as to why the Nizāmśāhī dominion remained far from complete subjugation and effective occupation under the Moghuls, despite the fall of its former capital at Ahmadnagar. It has been noted in history that Burhān Nizāmśāh II (1590-1594 A.D.), on the occasion of his invasion upon his son, Ismail, and his Minister, Jamālkhān "*represented that should he accept the assistance of the Moghuls the Deccanī would be alarmed and object to his authority*" (*Tabātabā, I.A.*, 1923). This feeling is reiterated by Afzal Khān Chengiz Khān on the occasion of the negotiations for peace in March, 1596 A.D., with Prince Murād. He said, "It is, however, evident that *the people of this country have lived and live in enmity with foreigners*" (*Ibid.*).

It is curious to note that the indetafigable energy and efforts of Ambar served to nurture and nourish the flame of independence among the Deccanī people. Under his supreme authority and command the Marāthās received valuable military training to keep up a determined opposition against the formidable and mighty power of the Moghuls and also gained useful administrative experience for the welfare and well-being of the people which stood them in good stead. With this previous background, Śāhajī entertained ambitious dream of the *swarāj-building* in the Mahārāṣtra which could be fulfilled through the earnest efforts of his able and talented son, Śivājī with his father's blessings, guidance and assistance. It is not surprising that these two successors of Ambar in the political arena within the Nizāmśāhī dominion found a ready and fruitful field for their lofty goal of independent dominion.

After 1600 A.D., the maximum sprawl of the Nizāmśāhī state was coextensive with the northern Kokaṇa littoral, its adjacent Sahyādrī Range, the Māwal tracts,[2] encompassing the region from the fort of Rājmachī and Chākaṇ in the north to Rāyareśwar Hill, Ambedkhind and Khambatkīghāt to the south, the Godāvarī including the Telanganā Region. Though the province of Vidarbha (Berar) was overrun by Malik Ambar several times, its effective occupation eluded his grasp for consolidation of administrative reorganisation and conciliation of its territory. Hence, the province of Vidarbha can hardly be treated under the territorial sovereignty of the Nizamśāhī dominion.

The maximum area under Malik Ambar's control may be computed to roughly 116000 sq. kms. with an approximate aggregate population of 6.25 million.

(iii) *The Impact of Contemporary Geo-politics in the Daccan*

After a suceessful negotiation of truce between the Nizāmśāhi ruler and the Moghuls, probably at the initiative of Malik Ambar, time and energy could be concentrated to recapture some chunks of territory lost to the Moghuls, outside Berar and oust the formidable Miyā Rājū from the mutually destructive and unhealthy rivalry (1607 A.D.), while the Moghul empire was entangled in the troubles caused by the murder of Abul Fazl, the rebellion of Salim Śāh, declining health of Akbar and accession of Jahāngīr to the royal throne (1605 A.D.) Malik Ambar's march against the ruler of Bīdar in 1602 A.D. seems to have been actuated by the aim of weaning latter from his secret leanings towards the Moghuls. The breathing space gained by Ambar till 1608 A.D. was utilized by him in the reorganisation of the renowned city of *Khadakī.* Immediately after his unsuccessful resistance at Ahmadnagar against the imperialists in 1609 A.D., his invasion of Gujrāt and the subsequent raid on the wealthy and premier port of Surat dealt a severe blow to the Moghuls in the Kokaṇa and barred their passage for their advance further south and re-established the contact of the Nizāmśāhī dominion with the western sea-board by the earlier capture of Chaul in 1607 A.D., which seems to have exchanged hands in the preceding period at least temporarily. This extraordinary feat brought not only the military prestige of the Moghuls to a low level but also filled in the power vacuum in the Nizāmśāhī dominion with an admirable effectiveness against the imperialists as well as the greedy neighbouring state of Bijāpur. Malik Ambar's momentary capture of Ahmadnagar in 1609 must have shaken the courage of the Moghuls, and the defeat of the Moghul commandar, Abdullā Khān at Khadakī in the following year, emboldened the Nizāmśāhī militia to offer stout and determined resistance to the Moghul arms, though later on the Nizāmśāhī troops sustained defeats. The triple alliance among the Ādilśāh, Kubtaśāh and Nizāmśāh, initially made in 1615 A.D., was renewed for the defence of territories of Deccan Sultanates in 1617 A.D. at the instance of the Portuguese who always viewed with apprehension the southward expansion of the Moghul empire.

However, be it noted that the Ādilśāh of Bijāpur played a role of duplicity against Ambar by capturing chunks of the Nizāmśāhī territory in deference to a clandestine understanding with the imperialists against the neighbouring states. Ambar had to bow before the severe storm blowing over the Nizāmśāhī territory at that period of its trial and tribulations. Nevertheless, the reinvestment of Ahmadnagar by Ambar in 1619 A.D., synchronizing with the extinction of the Barids'āhī kingdom by the Ādilśāh, and the predatory warfare of his Marāthā troops against the Moghuls, resulted in the ignominous retreat of the imperialists into Berar, followed by equally bold and during pursuit by Ambar across the Narmadā river into the Mālwā Plateau. The subsequent repulsion of the Nizāmśāhī forces by fresh deployment of the imperialist troops compelled Ambar to come to terms with the Moghuls. The decisive victory inflicated on the Moghuls and Bijāpurī forces at the famous battlefield of Bhātwādī in 1624 A.D. raised Ambar's prestige to its zenith, followed by his destructive siege of Nauraspur and the capture of a part of Ādilśāhī territory. Ambar closed his glorious career of unceasing and indefatigable military exploits with his death in May, 1626 A.D. Malik Ambar emerged not only as a successful saviour of the Nizāmśāhī kingdom but also restorer of all the territory, formerly lost to the Ādilśāh.

(iv) *Territorial Sovereignty*

The concept of well-defined territorial sovereignty did not crystallize in the Deccan in the 17th century. The political events and incidents unfold incursions of militia of one state into the territory of another vicinal state or capturing of defence points and establishments of a neighbouring state without any recognised formalities, sharing of revenue dues by adjacent states, raids for looting wealth and property, including seizure of standing crops, or groves, gardens and plantations of subject population of another state, clandestine occupation of chunks of adjacent territory of adjoining state and payment of annual tribute to another state. All this points to the conclusion that powerful state could prey upon a week neighbouring state with little qualms of conscience and condemnation from other state. *In other words*, the inviolability of state territory was hardly recognised and practised in the contemporary period.

Similarly, the inviolability of territorial sea was not in vogue or enforced by any weak naval power. It may be indicated that the establishment of trading stations on the western littoral of India by the Portuguese led them to claim sovereignty of the sea in the Indian Ocean in territorial waters as well as in the open sea. The Portuguese laid their hands on any vessel, not equipped with their *cartaz*, even out in the open sea.

(v) *The Boundaries of the State*

Even a cursory glance at Fig. 12.1 gives an impression that the western boundary and a part of the eastern boundary of the Nizāmśāhī kingdom coincided with natural features. The western boundary coincided with the sea-coast, while the eastern one seems to run along the right bank of the Godāvarī river and the left bank of its tributary, the Mānjarā river. The n.w. boundary coincides with the north-facing scarp of the Ajanta range and a part of the northern border of the kingdom seems to be aligned along the interstream area of the Pūrṇā and Dudhanā rivers. The southern boundary made conspicuous departure from any recognisable natural features. The shape of the kingdom is roughly rectangular with the east-west elongation and a projected portion into the Godāvarī-Mānjarā doab in its eastern extremities east of Nānder, sprawling over n.w. part of the traditional Telanganā region. The boundaries of the kingdom were not wholly natural nor culturally homogeneous. In brief, they were superimposed on the existing cultural regions and did not even embrace the whole of the Marāthī-speaking area within their limits both to the north and s.w.

(vi) *Some Boundary Functions*

The entry and exit of persons and goods into the state territory were controlled by existing regulations and formalities and practices. It has been stated by Van Ravestyn that he had procured 'a free pass' to cross the borders of the Nizāmaśāhī kingdom. On reaching the farthest limit of the boundary of the Nizāmśāhī kingdom on the 13th June, 1613 A.D., the Dutch party, accompanying Van Ravestyn, was allowed to pass on payment of a formal tax of *4 navels*, when Malik Ambar's letter was shown to border officers (*Wādekar*, 1931).

The regulations in respect of entry and exit of individuals and goods seem to be in force both in normal and war times. The Englishmen, in November, 1620 A.D., sought a *qual* or safe-conduct from Malik Ambar for the transport of their caravan through his territory (*F.R. Surat*, 1620). It appears that all foreigners and residents of other Indian states were required to arm themselves with trading licence before they could carry on any commercial activities in the Nizāmśāhī territory. The Dutch were offered trading rights at Rājāpore by 'Mir Abdul Fatij' (*Wādekar*, 1931) which seems to have been unavailed of by them. Malik Ambar did not tolerate irrendist activities of foreigners, as can be convincingly inferred from the warning administered by him to the English to conduct themselves as 'peaceful and discreet merchants' (*F.R. Miscellaneous*, 1621). There is an explicit reference to the search made by Malik Ambar of debtor of Ralph, who had been trying to escape from his obligations (*Foster*, 1922). This instance serves to adduce evidence to the established practice of keeping a watch on 'outlaws' or 'criminal runaways from the law'.

(vii) *Boundary Disputes*

Normally, the common and ready means for settlement of inter-state boundary disputes was resort to arms or clandestine and forcible occupation of adjacent territory of vicinal state. However, some boundary disputes were settled occasionally by peaceful means through bilateral negotiations and stipulated retrocession of disputed territory. The restoration of the fort of Kandhār by the Ādilśāh to Malik Ambar by persuasion is a good example in point. The establishment of *condominium* into the border territory of Shirwal Parganā (*Śiva-Charitra Sāhitya*, I, 1926) and sharing of land-revenue between the Portuguese and Nizāmśāhī Government in the proximity of Chaul (*Ibid*, IX, 1944) offer instances of other peaceful methods of solving problems of disputed territory between two neighbouring states. However, the currents of historical events point to the conclusion that the last two arrangements did not work satisfactorily and subsequently simmering discontents between neighbouring states burst out into open conflicts for forcible seizure of disputed territory on account of conscious or unconscious breach of faith on the part of any of conventing parties.

(viii) *Village Boundary Disputes*

Village boundary disputes constituted an integral part of internal Geo-politics of the times. A brief and incidental reference may be made to boundary disputes arising between individual adjacent villages and between a village and adjoining town, the nature of which has been discussed elsewhere.* The procedure for settling these disputes and the mode of marking boundary on the ground have been also alluded to in this paper.

(ix) *Nucleus and Core of the State*

The Geo-political history of the Nizāmśāhī kingdom reveals its original nucleus around the old and impregnable fort of Junnar, in the north Māwal region. With the shift of seat of its capital to the newly built city of Ahmadnagar, the state witnessed territorial expansion in its early stages and was placed well on the way to prosperity. The flourishing core area of the state developed in the Godāvarī Basin, east of Ahmadnagar, which invited the covetous eyes of the greedy powers in the north and the south.

(x) *The Shifts of Capital*

To Junnar belongs the honour of being the first capital of the newly born state in 1490 A.D. with its eccentric location in its n.w. corner, forming its nuclear region in the remote and inaccessible tract in the north

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* Refer to B.G. Tamaskar : The Life and Work of Malik Ambar—[IAD ORIENTAL (ORIGINAL) Series No. 6] Idarah-i Adabiyat-i Delli, 2009, Qasimjan Street, Delhi 6.

Māwal,[5] extending from the fort of Shivanerī to the vicinity of Daulatābād.

The founder of the Nizāmśāhī kingdom laid the foundation of a new fortified town at Bingar in 1494 A.D. with its commanding position on the bank of the Sīnā river, near Bāgh Nizām, lying hard by the water-shed along the Ahamadnagar Plateau. The shift of the Nizāmśāhī capital to this new town called Ahmadnagar after 1494 A.D. gave it almost a central location within the existing areal extent of the kingdom, equidistant between Junnar and Daulatābād. It became a custom "for Ahmudnuggur army to take the field twice a year (at the end of autumnal and vernal harvest". (*Astrābādī*, 1946). With the expansion of the *Nizāmśāhī* territory in its initial states, Ahmadnagar remained an advance outpost on the northern frontiers till the annexation of Berar to the Kingdom which emphasized its central location in the enlarged size of the state.

The capitulation of Ahmadnagar in August, 1600 A.D. by the Nizāmśāhī kingdom to the Moghuls necessitated the transfer of its capital to Parendā, situate within the fork of the confluence of the Sīnā river with one of its tributaries flowing towards the south, giving direct access to Ahmadnagar. Within a year or two, the seat of Government was transferred to the more secure and sheltered place at Ausā, on the Mānjarā Plateau towards its eastern extremity, south of Lātūr in the proximity of which the newly raised monarch, Alī, styled as Murtaza Nizāmśāh II, was suffered to retain the territory of Bīr, Ausā and Dhārūr by virtue of the peace treaty contracted by the Moghuls in 1601 A.D.[6] With the recapture of most of the lost chunks of territory and reunification of all the remnants of the dominion into a united whole, Ambar restored Junnar to its pristine glory in 1607 A.D. (*Briggs*, 1910) as the seat of government, which seems to have been chosen as an advance outpost, close to the deep recesses of forested tract, for the further recovery of the territory, captured by the Moghuls. The year, 1610 A.D. witnessed the shift of the Nizāmśāhī capital to Daulatābad, a place of strategic value, whose insulated position offered good defence among sheltered hills, against any sudden external invasion (*Seeley*).

In 1612 A.D., Ambar transferred the Nizāmśāhī capital to the newly built city of Khadakī, at a distance of 13 kms. s.e. of Daulatābād. It stands in a valley watered by the Dudhanā river between the Satara Hills on the south and the Sichel range on the north which commences at Ellora and runs eastwards (*Burgess*). It was not only the best city in the Deccan but no other could match with it in the whole of India (*Nihālwandī*, 1931).

The shifts of the capital in quick succession to the above-mentioned places reveal the efforts of Ambar for adjustment to their changing locational values with the oscillation of the political isobar to and fro on the northern frontiers of the kingdom at different phases of time.

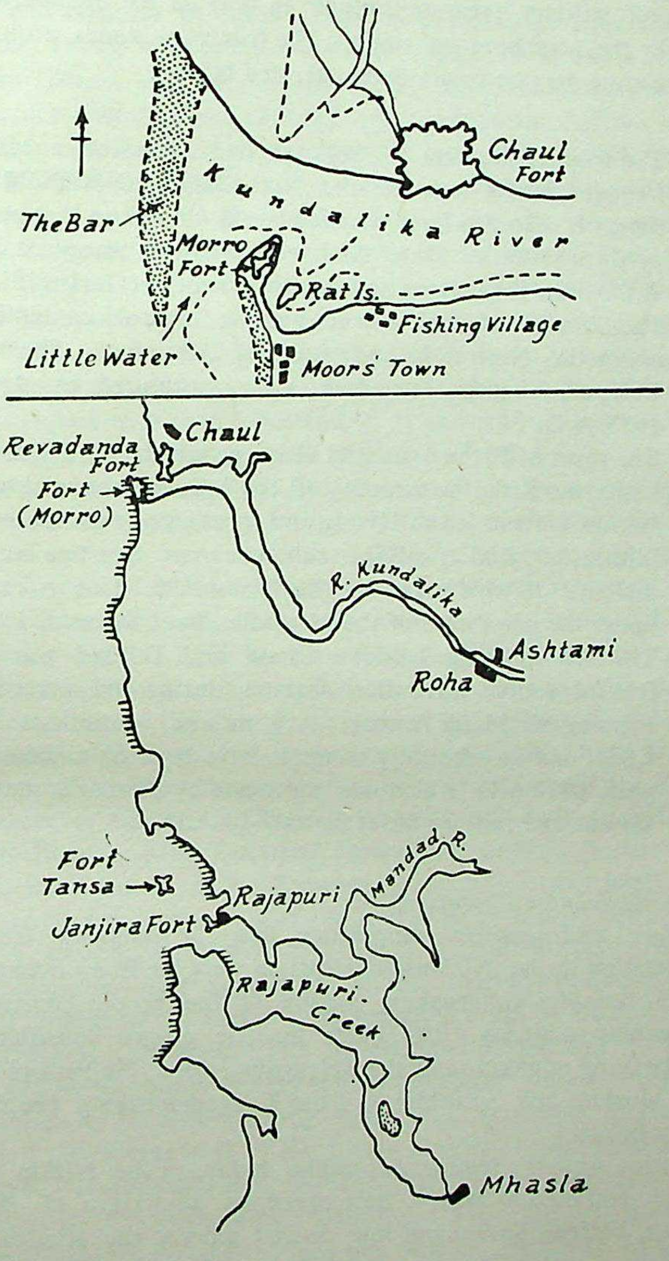
Chaul Fort
Kundalika River
The Bar
Morro Fort
Rat Is.
Fishing Village
Little Water
Moors' Town
Chaul
Revadanda Fort
Fort (Morro)
R. Kundalika
Ashtami
Roha
Fort Tansa
Rajapuri
Mandad R.
Janjira Fort
Rajapuri Creek
Mhasla

Fig. 12.1 : *Chaul*

(xi) *Frictional Zones*

The areal extent of the Nizāmśāhi kingdom with its changing political vitality, suffered vicissitudes of fortune in the past on account of the political and military pressure brought to bear on its boundaries and frontiers by the neighbouring states. The frictional zones around the core of the state may be succintly enumerated below :

(i) The frontier fortress of Solāpur had remained a source of frequent strifes between the Nizāmśāhī and Ādilśāhī dominions. It seems to have changed hands off and on between these political powers. Malik Ambar effected its conquest in 1625 A.D., after the famous and decisive victory at Bhātwādī.

(ii) The Bhīmā-Nīrā doab also formed the bone of contention between the Nizāmśāhī and Ādilśāhī dominions. Shirwal and Indāpur, lying in this *doab*, were recaptured by Ambar in 1625 A.D.

(iii) The town of Pātharī and its vicinity, which were included in Berar, were the patrimony of the brāhmaṇa ancestors of the Nizāmśāhī and led to bloody and prolonged wars between the Nizāmśāhī, and Ādilśāhī sultanates, as prestige value was attached to this tract by the Nizāmśāhī. This tract passed under the possession of the Moghuls about the year, 1595 A.D.

(iv) The littoral lying between Chaul and Dābhol was another fruitful source of frontier disputes during and preceding the regime of Malik Ambar. A firm and continuous hold on Chual and its proximity seems to have been obtained about the year, 1607 A.D. which was sustained by Ambar's march into Gujrāt and raid on Surat in 1609-10 A.D.

(xii) *The Population Characteristics*

The ethnic and liguistic composition and the religious structure of the population in the Nizāmśāhī kingdom were far from homogeneous, although the Marāthī-speaking section of the people constituted an overwhelming majority. The other liguistic groups consisted of the Telgu-speaking population of the Telanganā region, the Persian-speaking foreign Muslims and sprinklings of the Kannad-speaking people on the southern borders.

During Ambar's regime, not unlike today, in the Nizāmśāhī territory, the population was a heterogeneous admixture of *Brāhmaṇas Kśatriyas*, *Vaiśyas*, *Śudras* and low *Śudras* among the Hindus, besides the Muslims and barbarous aboriginal and tribes. The last-named elements embraced the *Kātkarīs*, *Kolīs* (fishing folk), *Thākurs*, *Bhillās*, etc. These totally or partially uncivilised peoples with little capacity for comprehending the contemporary administrative machinery, being steeped in ignorance, had to stand generally aloof and isolated from the whirlpool of political affairs and turmoils, except their occasional and isolated participation in them. They exhibited also little ability or virtue even to be enrolled as soldiers, except occasionally, in royal forces and hence, they were shorn off from participation in the contemporary Geo-politics. Though the *Chāmbhars*, *Māhārs*, *Māngs*, etc., resident in remote and inaccessible fastnesses of forested tracts had of late become inhabitants in villages, soldiering or statesmanship remained a far-off dream for them also. In the rural areas they turned to undignified, strenuous and non-privileged avocations of life or indulged in thefts and dacoities to earn their livelihood which sapped all their time and energy to leave little or no leisure for other civilized walks of life. The traditional *Vaisyas* came to be categorized, into two sub-groups, *namely*, tradesmen and agriculturists. Those, who were preoccupied with commerce and trade and crafts, like goldsmiths, tailors, potmakers, etc., came to be regarded as different and exclusive castes. With their immobility from the traditional occupations, they were also denied opportunities for generations in their participation in political affairs and were least inclined to inculcate a new habit to acquire skill and ability in administrative matters and remained almost completely detached from them. Agriculture was dominated by the *Śudras*, giving rise to a new caste as *Kuṇbīs*, already in existence for several hundreds of years. The mixed marriages among the nomadic *Śudras* of the times of Pāṇini and the prohistoric Nāgas, the *Vaiśayas* and the *Kśatriyas* culminated in the origin of the *Kuṇbīs aliss Kulapatīs* in the Mahārastra. They hired their labour or, at times, took to trade and commerce, or military service and, normally, fell back on cultivation for their livelihood. After seasonal agricultural operations, the *Kuṇbīs* resorted to soldiering as their off-season jobs. These mercenary hosts of people found employment under any *Muslim* or *Hindu* feudal lords without any qualms of their conscience as to their master, willing to pay them liberally. The proportion of the *Brāhmaṇas* and *Kśatriyas* to the total number of the *Kuṇbīs* was negligible and formed a microscopic minority in rural areas. The selfless, intellectual and well-to-do group of persons was pronouncedly non-conspicuous (*Rājwāde*, 1922).

In addition to the disintegrating social and economic factors, the prevalence of the diverse sects of Hinduism, *namely*, *Mahānabhavapantha Vārkarīpantha*, *Kabīrpantha* and *Rāmdāsī Smpradāya* criss-crossed the heterogeneity of the population, already in existence, though these different sectarian creeds did not breed any hostility towards each other to come into open conflicts, (*Karve*, *et al.*, 1954).

It is evident from history that the *Marāthā-Rājput* families began to share high offices in the civil and military organisations of the Nizāmśāhī state by slow degree with their Muslim counterparts. Ambar entertained capable and distinguished Hindus in responsible and high offices of the state. It may be noted that the well-known Mālojī and his illustrious son, Śāhjī rose to high ranks of power and position among the Nizāmśāhī nobles, during Ambar's regime "Within its (Ahmadnagar) frontier", observes Kincaid rightly, "the great Maratha revolution had its birth" (*Kincaid*, 1918). In the lower rung of services, more particularly in rural areas, the Hindu officials seem to have a position of almost exclusive dominance.

Mojor *T.W. Haig* has pointedly drawn our attention to the prevalent custom of the Bahamanī kings employing foreign adventurers freely in their army. "These strangers were chiefly fair-skinned foreigners from Persia, Arabia, and Central Asia, bold, energetic, and enterprising, who brought with them followers of their own race. *These strangers were employed, as a rule, in preference to......Deccanis, in all difficult enterprises*......Many rose to highest offices in the State, to the prejudice of the native Deccanī, who found himself outstripped by the strangers at the Council board as well as in the field. The success of the foreigners was, naturally enough, distasteful to the native-born Indians, and led to recrimination and quarrels and at length to bloodshed, Deccanīs, as the aggrieved party, being the first aggressors, The ill-feeling between the parties was accentuated by religious differences, for large numbers of foreigners were of the Śiāh sect, while the Deccanīs were generally orthodox Sunnīs" (*Haig*, 1907).

Besides the foreign-born Muslim adventurers, those born of Śudra women constituted another group of *Muslims* and the third and last section of their population embraced the ranegades of other faiths, *e.g.*, *Khor*, *Tāmbolis*, *Patwegar*, *Mominās*, *Rangrej*, *Boharās*, *Bhorīs*, etc., not excludings converts from the *Brahmaṇas* and *Kśatriyas* (*Ibid.*).

The Africans, with the few exceptions, were Sunnīs. These dark-skinned, unlettered and unassuming Africans were at a disadvantage against the fair, handsome and cultured men of the north, and that this cause as well as difference of religion, promoted the farmer to effect their easy conjunction and cooperation with the Deccanīs. With few exceptions, in the feuds between the Deccanīs and the foreigners, the parties consisted of the Deccanīs and the Africans, on one side, and the Turks, Arabs and Persians, on the other. Ill-feeling between the two parties probably persisted from the earliest days of the Bahamanī kingdom, but it was not until a century had passed off that it burst out into open violence (*Ibid.*).

Besides, two other minor sects of Islām seem to have sprung up in the Deccan, *namely*, Mahdavī (*Ibid.*) and Kādirī (*Rājwāde*, 1915), which added to the diversity among the Muslims.

A large number of the Portuguese was in the service of the Nizāmśāhī kingdom, all of whom had accepted Islam as their new faith and some of them had acquired mansabdarships also (*Journal of Indian History*, 1938).

All these religious schisms continued to be a principal source of perpetual strife till the extinction of independence of the Deccan Sultānates.

The population characteristics of the Nizāmśāhī territory presented a baffling and intriguing task to Ambar who has to pull together the different sections of the people with admirable skill and tact against the rising tide of the Moghul imperialism on the north and also secret or open hostilities of vicinal states, hedged around in the east and south. Ambar's liberal policy of religious tolerance and throwing open opportunities to the Hindus for services in the state achieved at least an outward semblance of unity and integration among the people against a common foe.

II. GEO-STRATEGY

The author of the '*Burhān-i-Māssir*' has enumerated the number and names of forts that Burhān Nizāmśāh II possessed at the time of his death. The author explains that in the Deccan, *Qalāh* means a fort build on a hill or elevated ground, and *Hisār*, a fort on a plain. In Fig. 12.2 all forts of Malik Ambar's regime, that could be indentified and located, have been inserted. An analysis of the map reveals *three* distinct geographical tracts : (a) The hill-studded Kokaṇa lowland, west of the Sahyādrī mountain barrier, (b) summits of the Sahyādrī mountain range, and (c) the Plateau tract, east of the Sahyādrī mountains.

In the Kokaṇa lowland, two more categories of forts may be added, *namely*, sea-forts, lying immediately on the sea-board or close to it and piedmont forts, lying at the western foot of the Sahyādrī mountains on the adjoining lowland. The actual sites of some sea-forts lie at the foot of some rocky headlands as in the case of Bāṇkot, and some are situated on islands such as Janjīrā, and some crown low hills, immediately close to the sea-coast. As the Kokaṇa lowland is studded with hills, forts were built on the plain, such as Karnālā and Shivathar as well as on hills such as Pālī. The location of piedmont forts can be easily made out from the Fig. 12.2.

On the summits of the Sahyādrī range, the forts are mostly aligned on its principal watershed, affording relatively easy passage-ways accross its formidable and inhospitable barriers. It is interesting to note that most of the forts of the Sahyādrī range lie in close vicinity of ancient caves, which served as store-houses for commercial commodities on highways of commerce in those days. Obviously,

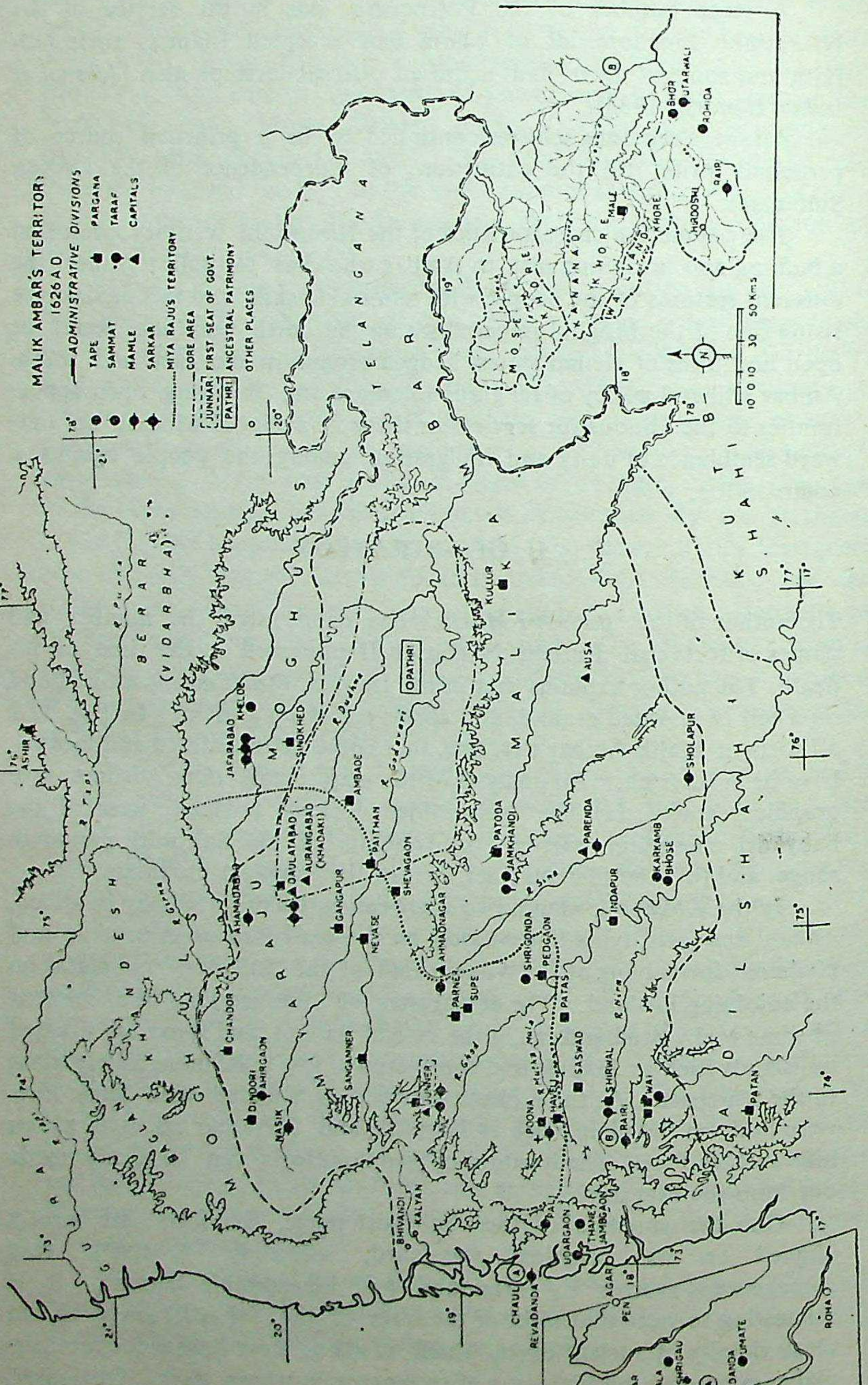
MALIK AMBAR'S TERRITORY
1626 A D
ADMINISTRATIVE DIVISIONS
TAPE
SAMMAT
MAMLE
SARKAR
PARGANA
TARAF
CAPITALS
MIYA RAJU'S TERRITORY
CORE AREA
JUNNAR FIRST SEAT OF GOVT.
PATHRI ANCESTRAL PATRIMONY
OTHER PLACES
GUJARAT
KHANDESH
BAGLAN
BERAR (VIDARBHA)
TELANGANA
MOGHULS
MALIK AMBAR
MALIK AMBAR
QUTB SHAHI
ADIL SHAHI
ASHIR
JAFARABAD
KHELDE
SINDKHED
AHAMADABAD
DAULATABAD
AURANGABAD (KHADAKI)
AMBADE
PAITHAN
SHEVAGAON
GANGAPUR
NEVASE
CHANDOR
DINDORI
AHIRGAON
NASIK
SANGAMNER
JUNNER
AHMADNAGAR
PARNER
SUPE
PATODA
JAMKHANDI
KULLUR
PATHRI
AUSA
PARENDA
SHRIGONDA
PEDGAON
PATAS
SASWAD
POONA
HAVELI
SHIRWAL
RAIRI
WAI
PATAN
INDAPUR
KARKAMB
BHOSE
SHOLAPUR
BHIVANDI
KALYAN
PALI
THANE
JAMBGAON
UDARGAON
AGAR
PEN
CHAUL
REVADANDA
SASWANE
JHIRAD
PARHAR
KHANDALA
ALIBAG
SHRIGAU
UMATE
ROHA
MOSE KHORE
KANAND KHORE
MALE
VANDKHORE
HIRDOSHI
RAIRI
BHOR
UTARWALI
ROHIDA
R. Tapi
R. Purna
R. Girna
R. Dudhna
R. Godavari
R. Ghod
R. Sina
R. Bhima
R. Nira
R. Mula
R. Mutha
N
0 10 10 30 50 Kms
21°
20°
19°
18°
17°
73°
74°
75°
76°
77°
78°

FIG. 12.2 : *Malik Ambar's Territory — Administrative Divisions*

the placement of forts at points of natural defences, on difficult and inaccessible scarped hill-tops or terraced hill-tops preferably bordered by intervening deep valleys are their outstanding characteristic feature. To the east of the Sahyādrī range, sites of forts may be classified into *three* categories : (a) isolated hill-tops, *e.g.*, Kandhār, (b) commanding natural routes passing through gaps, and (c) on points of easy river-crossings, *e.g.*, Parendā on the Sīnā River.

Common morphological features within forts reveal well-marked cultural characteristics on the landscape, which embody cisterns, tanks or wells for water-supply, *Dārukhānā* or powder chamber, *Ambarkhānā* or granary or stock of food-stuffs, temple or place of worship, guard-room or guard-rooms, in addition to barracks for the garrison and officers in a number of forts, rock-cut chambers and other parts of forts were used for storage and dungeons were also provided. These forts not only stood as sentinels against unwelcome intruding armies of enemies but also afforded protection to trading caravans, moving past them along ghāt routes, under the escort provided by the State under *Gujars* between assigned *Chaukīs* or check-posts controlled by *Ghātpāndes* (*Quarterly Bhārat Itihās Samshodhak Mandal*, 1954).

The names of most of the forts seem to be transcribed incorrectly in Persian, some of which have been indentified as below :

1. Rowla-Chola	Rāwlā-Jāwlā.
2. Kachan	Kānchan.
3. Katra	Kāntrāgad.
4. Anki	Ankai-Tankai.
5. Rohera	Rohidā.
6. Alang-Karang	Ālang-Kulang.
7. Markonda	Mārkandeya.
8. Kohej	Koij/Kohoja.
9. Haholi	Whyāhalī.
10. Karkara	Karhād.
11. Haris	Hariṣagad.
12. Judhan	Jīvdhan.
13. Chandher	Chāndwad.
14. Dhorap Wanki	Dhorap-gad.
15. Anhawant	Ahiwantgad.
16. Bola	Wāī.
17. Salapur	Solāpur.
18. Bodhera*	Bāvdhan.
19. Drka	Ekdarā.
20. Sitonda	Shivathar,

21.	Taltam*	Tālebīd.
22.	Muranjan	Murumdeo/Rājgad.
23.	Satkasa*	Sapt-Shringī.
24.	Morkel	Morgirī.
25.	Halka	Hadsar.
26.	Tabakaba	Tringalwādī.
27.	Anwas	Ankai (?).
28.	Taltam Batyala	Tāndulwādī.
29.	Koldeosher	Koldhair (n.w. of Chāndwad).
30.	Bhima Ankar	Bhīmā Shankar.
31.	Trimbak Banesa	Trimbak.

Kondhānā was renamed as Sinhgad and the hill-fort of Bhorāh was called as Sudhāgad by Śivājī. The forts of Anjir (probably Ājre or Ājrā), Wanjarāī, Kadeval and Tānke remain still unidentified. The locations of forts marked with asterisks have not been inserted. All the forts remote from the territory of the Nizāmśāhī kingdom during the regime of Malik Ambar have been omitted from the Fig. 12.2.

III. GEO-ECONOMICS

The cultivation of food-grains, oil-seeds, pulses, lesser grains (*Kadadhānya*), narcotics, fibres, spices and flavouring substances constituted the most important economic activity in the Nizāmśāhī kingdom in the first quarter of the seventeenth century. Animal-rearing was an adjunct to the main agricultural activity. Obviously, traditional industries and vocations were secondary to the agricultural production and sources of income. It needs hardly to be mentioned that largely self-contained rural communities formed the main base of economic and social structure in the contemporary period.

(a) *Agricultural Produce*

Comprehensive and systematic details about the geographical distribution of agricultural products are not available. However, from a list of perquisites of *vatandārs* of Wāī, the following crops seem to have been raised in its environs : Brinjals, and other kinds of Vegetables, Sugarcane, Corn, Rice and Jowar (*Rājwāde*, 1915).

Similarly, in the neighbourhood of Anjanwel, south of Dābhol, on the western littoral of the kingdom, a number of lesser grains such as Pāwate (*Dolichos Lablab Linn.*), Chawalī (*Vigna catjang*), Kadave (*Dolichos lignosus*), Kulith (*Dolichos Biflorus*), and pulses such as Urada (*Phasseolus Mungo Roxburghi*), Munga (*Phaseolus Radiatus*), Tur or Arhar

(*Cajanus Indicus*), in addition to other crops, *namely*, Paddy, Turmeric, Fibre known as Tāg (Jute ?), and Sugarcane were cultivated. (*The First Annual Report*, 1912, *Bharat Itihas Samshodhak Mandal*, Puṇe).

The culture of fruits included Plantains, Coconuts, Mangoes, Jack-fruits (particularly on the Kokaṇa lowland), Water-melons and Lemons. The production of Betel-leaves seems to be a specialised culture.

Paddy seems to have a wide-spread cultivation on the Kokaṇa lowland which is referred to in the environs of Peth Rustamābād (*Śiva-Charitra-Sāhitya*, 1953) (*Māmle* Murtizābād *alias* Chaul), Shāhbāz (*Ibid.*) (*Tarf* Srīgāon and *Māmle* Chaul) and Chāndwad. Similarly, spices and flavouring substances such as Cinnamom, Garlic, Nutmeg, Pepper, Turmeric, Cumin, Clove, etc., seem to have been raised on the Kokaṇa lowland. Narcotic substances such as Opium (probably from Ulnābād), Tobacco (near Chāndwad or Chāndor) and Bhāng (hemp ?) were raised by cultivation. Sesamum, Kardi (*Carthamus tinctorius*), Mustard, etc., were the cultivated oilseeds, which were the common source of edible oil.

The expansion of cultivated land was effected by colonization of virgin lands, and plantation of gardens was promoted to which following references are found in contemporary documents :

1. The erection of gardens in Tarf Khedebāre in 1606 A.D. (Selections from the *Peshwā Daftar*-XXXI, Art. 4; *Patra-Sar-Sangrah*, 2376).
2. The colonization in the valley of the Muthā River. (Selections from the *Peshwā Dafter*-XXXI, Art. 10).

Chaul and Bassein witnessed a heavy concentration of palm groves and orchards and coconut plantations which unhappily led to disputes about their ownership between the Portuguese and the subjects of the Nizāmśāhī kingdom in the environs of the above-mentioned towns (*Bocarro*).

(b) *Animal-Rearing*

For animal-rearing, grass and *Kadbi* (dried stems of *Jowār* and *Bājrā*) and husks of grains and pulses served as common fodder. Explicit mention of the rearing of cattle, buffaloes, goats, sheep and horses occurs in the extant contemporary documents. Peth Rustamābād (*Māmle* Murtizābād *alias* Chaul) was a mart for cattle, while buffaloes as well as cattle were sold at Shāhbāz (*Śiva-Charitra-Sāhitya*, 1953) (*Tarf* Srīgāon and *Māmle* Chaul), sheep and goats were available in the vicinity of Wāī, (*Rājwāde*, 1915), and horses could be purchased at Chāndwad[8] and Chaul. Apart from bullocks and buffaloes used as domestic animals, horses were employed for travel and transport of goods and in the cavalry of the kingdom. Caravans of bullocks were in use for the transport of goods and materials to trading centres as well as military camps, as in the past. Bullocks were harnessed to carts, used for the traffic of commercial goods and commodities.

(c) *Industries*

(i) *Agriculture Based* : The extraction of oils from oilseeds and copra by oil-presses was one of the common agriculture-based industries. Animal fat was supplied from the milk of cows and she-buffaloes. Probably, soaps were made from vegetable oils. *Gur*-making and preparation of molasses from sugar-cane juice appears to be a widespread industry. *Gur* seems to have been refined for making of sugar. Obviously, cleaning and husking of food-grains and pulses and processing of plant fibres were ancillary industries of agriculture.

(ii) *Forest-Based* : In the forest-based industries may be included mat-making[48] and collection of lac, gums and *chironjī* (Karnels *of Buchanania Latifolia*) (*Śiva-Charitra Śahitya*, 1957-58). Probably, basketry was one of the leading industries of this category (*Ibid.*), while on the Kokaṇa coast navigational vessels were also built (*Ibid.*). Chaul was boat-building centre in the Nizāmśāhī kingdom for which wood was obtained from Kalyan and Bhivandī *via* Bassein. (*Documentes Remetidos da India*, No. 1115).

(iii) *Fishing and Salt-Making*: Near Chaul, fishing seems to have been a flourishing occupation (*Śiva-Charitra Sāhitya*, 1957-58). Salt-making from brine was another occupation on the Kokaṇa coast. Perhaps, Mithagāvathāṇe (*Ibid.*), refers to salt-pans close to Pen, Panvel and their proximity on coastal tracts.

(iv) *Textiles and Fibres* : Silk, cotton and woollen textiles were manufactured, on hand-looms. Silk was woven at and environs of Chaul (*Ibid.*). Chaul seems to be a centre for the manufacture of coloured cloths in the contemporary period (*Ibid.*). Kalyāṇ and Bhivandī were leading cotton-weaving centres, (*Ibid.*), where bleached and white cloths, *Sele* and *Kochakīyā* or turbans were particularly manufactured. There are a few notices of the articles manufactured out of fibres such as coconut coir and *goṇapāt* (jute cloth ?), ropes or strings (*Ibid.*). The explicit reference to rolls of *newār* (cotton-strips of coarse cotton yarn for bedsteads) (*Ibid.*), may be treated as allied to cardage industry.

(v) *Miscellaneous Industries and Occupations* ; A large variety of other industries covered the making of glass, bedsteads, latterns, dishes, combs for women, and leather goods (*Ibid.*). To other industries, which might have been in a flourishing state, there are no references in extant documents.

There is a distinct reference to tailors, carpenters, jewellers bronzeworkers, blacksmiths, dyers of cloth and garments and cobblers which points to the conclusion that sewing of garments, jewellery, making of bronze vessels for domestic purposes, dyeing of textiles and garments and leather-working were some of the remaining occupations.

From references to *Tāfedārs* and *Jarībdārs*, it may be surmised that some individuals secured their livelihood by procuring rights of maintaining boats at points of crossings on rivers and collecting fares from passengers and for transshipment of goods, including commercial commodities and measurement of lands on payment of specified rates respectively (*Śiva-Charitra-Sāhitya*, 1953). Rural marketing, obtaining in the contemporary period, seems to be one of the sources of livelihood to a section of people, engaged in it.

(vi) *Rural Marketing* : We come across several *writs of instructions* to local officers to the effect that traders should be permitted to carry on trading activities and to move to their proposed or intended destinations for this purpose with their commodities uninterrupted or without harassment for extra payment of cesses and taxes, over and above prescribed rates (*Ibid.*). A brief survey of periodic market-places, based on available documents, will spotlight the local commercial activities of the contemporary times in the Nizāmśāhī kingdom.

(a) *Peth Rustāmabād*

It appear that the market at *Peth* Rustamābād of *Māmle* Murtazābād *alies* Chaul was closed down, sometime in the regime of Malik Ambar due to disturbed conditions. Its revival was effected in 1643-44 A.D. with the tax-structure prevalent in his times. There were former store-houses and ware-houses for commercial commodities at the place at the time of the revival of the market-place (*Ibid.*, 1944).

The following commodities were offered for sale at the market-place (*Ibid.*, 1953) :

Sr. No.	Commodities	Remarks, if any
1.	Cattle	Provision for cattle-feed ordered.
2.	Rice	Transported in sea and river vessels.

3.	Silk	Brought from Revadandā and Chaul.
4.	Cotton	Sold by Cotton-carders, who held an exclusive right for the sale of this commodity.
5.	Nāchanī (Rāgī)	(ELEUSINE CORACANA)
6.	Vāṇa (Possibly, *Phoenix Dactylifera*)	Brought from other neighbouring kingdoms.
7.	Khumāsa	Cosmetics
8.	Tāfutā	Tāftā

From Aṣtamī, Rohe (Rohā) and Bīrwādī or *Tarf* Rājāpurī, kene (*Commilena Bengalensis*), rice, cloth, *nilotarī* (blue piece of cloth) were available at the place. It appears that the place was rehabilitated and resettled by a few families and new officers were appointed, such as *Mahajan* and *Kulkarṇī*, *Chaugale* and *Śete* for reorganisation of the market-place. The organisers of market-place were vested with power and authority to levy fines for criminal acts, such as theft, murder, etc. The limits of the market-place were spelled out in the document. For promoting marketing activities, debts of debtors were ordered to be deferred for payment for a span of five years. The office work of the market-place was entrusted to *Śete*, *Mahājan* and *Chaugale* cojointly. For rehabilitation of the market-place cesses and taxes were reduced to half and one-fourth of the usual prescribed rates.

(b) *Shāhabāz*

There is another tax-deed which refers to the market at Shahabaj, Tarf Srigaon and *Māmle* Chaul. It appears that the collection of taxes was farmed out to the highest bidder. The following items were available at the market-centre :

Sr. No.	Items	Remarks, if any
A.	Bondsmen & Slaves	
B.	He & She buffaloes	Including Milch buffaloes.
C.	Cattle	
D.	Cloth :	
	(a) *Ghatī*	
	(b) *Asta Putalī*	Bride's wedding garment.
	(c) *Patāva*	Multi-printed silk cloth.
	(d) *Tāfatā*	
	(e) *Khārān*	Red-coloured Khadi ?
	(f) *Musadar*	Printed Cloth ?

(g) *Rugs*	
(h) *Godadī*	Crazy quilt garment of cotton and silk.
(i) Bleached Cloth	
(j) *Sele*	Ornamental cloth for women's upper body, made of silk.
(k) *Kochkīyā*	Turban.
(l) *Gonapāt*	Jute cloth ?
(m) *Purtakāli*	Wholly black cloth.
(n) Ornamented *Sela*	
(o) *Sārīs*	
(p) *Dhotis*	
(q) Coloured Cloth	
(r) *Lugdī*	
(s) *Patakī*	(*Pataka* possibly, Turban)
(t) *Pitāmbar*	Literally yellow cloth.
(u) *Kada*	A kind of silk *dhoti* with borders.
(v) Caps, small and large	Including velvet caps.
(w) *Fula-Pagar*	Chintz ?

E. *Grains and Vegetables* :	Harvested commodities.
(a) Wheat	
(b) Gram	
(c) *Munga* (Muga)	*Phaseolus radiatus.*
(d) *Tur/*(*Arhar*)	
(e) Peas	
(f) *Kuruda* (?)	May be *Kulith.*
(g) *Urad*	(*Phaleous Munge/Roxburghi*)
(h) *Masur*	(*Lens Esculenta*)
(i) *Varaṇe* (Pāvate)	(*Dolichos Lablab*)
(j) Carrots	(*Dolichos Lablab*)
(k) Radishes	

E. *Flavouring Substances* :	
(a) Nutmegs	
(b) *Māyaphal*	
(c) *Hingul*	(*Febula Linn.*)
(d) *Manasil*	(*Commiphera Mukul*)
(e) *Hīnga*	*Ferula Foetida* (Asafoetida)

(f) *Jāyapatrī*	
(g) *Śilāras*	Mace.
(h) Cloves	
(i) *Chola*	Kāle (and) Pāndhare Mire (Black and White Pepper).

G. *Miscellaneous* :

1. Camphor	
2. Mercury	
3. Pepper	
4. Glass	
5. Turmeric	
6. *Sūrya-Khār*	Salt-petre.
7. Cumin	
8. *Kīl*	*Gosypium Ver. assamic* ?
9. *Chadarus*	Resin.
10. *Bhāng*	*Cannabis Sativa.*
11. Opium	
12. *Shrīchand Sandal*[10]	
13. Rice	
14. Coconuts	
15. Tamarind	
16. *Methī*	(*Trigonella Foenum Graecum Linn.*
17. Saffron	
18. *Kelhi*/(*e*)	Tin.
19. *Begad*	Very thin coloured metal Sheet.
20. Chaul Gown	Gown.
21. *Majista* (Indian Madder)	(*Rubta Cardifolia*)
22. Garlic	
23. *Dhaiti chi sal*	Bark of some tree.
24. *Fasaki* rice from *Kulbiyā*	
25. Bedsteads	
26. Latterns	
27. Dishes	
28. Combs for women	
29. Basketry articles	
30. Water-melons	
31. Logs of wood and fuel	
32. Coconuts	
33. *Biyāchī pāte*	Unidentified.
34. Jack-fruits	

35. *Irde & Fahire*	Lemon, Fahire remains unidentified.
36. Sugarcane	
37. Yarn (cotton ?)	
38. Jute	
39. Soap	
40. Plantains	
41. Betel-leaves	
42. Onions	
43. Ginger	
44. *Majar* (Mazu ?)	*Quercus Lustanica.*
45. *Lavha*	Reeds.
46. *Natāni* (Nāgli)	A kind of cereal.
47. Fishing nets	
48. Lac	*Tachardia* (*Certeri*) *Lacca.*
49. Fish	
50. Navigational vessels	
51. *Simvārā*	Large door frames
52. Goats	
53. Fuel	Transported in vessels.
54. *Abīr*	Incense.
55. *Gulāl*	Red powder.
56. Copra	
57. *Poinadī*	Coir ropes.
58. *Khār*	Salts and alkalis.
59. Bamboo and Bamboo strips	
60. *Tādī*	Palm juice.
61. Footwears	
62. *Sendur*	Red Powder for worship.
63. Swords (?)	
64. *Gur*	Jaggery and Molasses.
65. Kites	

Miscellaneous articles displayed at the market-place for sale embrace straight long bamboos, bundles of green grass, ropes of navigational vessels, half-tanned leather, sail-poles, whips, *mādhī* (juice of palm), coir ropes, sesamum (Tīl in Marāthi), large and small sized wooden boxes, hand boxes, opium and other unidentified items include *Kuta*, *Keria*, *Sakatanis* (Carpentry goods ?), *Hirvīs* and *Bhikāsanī*.

The close study of the tax-structure (*Kanu Jakat*) reveals that market-cesses were collected both in kind (*vānagi*) and cash, according to the mode of transport of commodities, such as head-loads, shoulder loads, vessels (small or large) and also on imports and exports. It seems that from purchasers of newly constructed vessels purchase-tax was collected. (*Ibid*., 1953).

(c) *Kasbā Chāndwad*

In an unpublished document on the tax-structure of *Kasbā Chāndwad, Māmle Jāfarābād* is embodied the commodities available for sale at the place which are enumerated below :

Sr. No.	Commodities	Remarks, if any
1.	Alum	See botanical name in the *supra*.
2.	*Hīnga*	
3.	*Hingulī*	Vermillion.
4.	Opium	From Ulnābād.
5.	*Jāyapatrī*	
6.	Turmeric	
7.	Cinnamom	
8.	*Pi* (*m*) *palmūl*	
9.	Catechu	
10.	Garlic	
11.	*Chironjī*	In Marāthī-*Chārolī*.
12.	Gums	
13.	Raw and green mangoes	
14.	Bājrā	*Sajgure* in the original.
15.	Wheat	
16.	Gram	
17.	*Masur*	*Lens Esculenta*.
18.	Betel leaves	
19.	Nutmegs	
20.	Copra	
21.	Dried dates	
22.	*Sotī or sunt*	Processed ginger.
23.	Pepper	
24.	Cumin	
25.	Gur/Jaggery and Molasses	
26.	Soap	
27.	Rice-balls (*Mudanī*)	For want of hotels, perhaps, boiled rice was sold to the needy.

28.	*Vidāl*	*Legumi-nosai.*
29.	*Urad*	*Phaleous Mungo/Roxburghi.*
30.	Rice	
31.	*Kulīth* (Horse-gram)	*Dolichos bifeorus.*
32.	Resin	
33.	Tīl	*Sesamum indicum.*
34.	Salt	
35.	*Varāyā*	*Polichos Lablab.*
36.	*Kardī*	*Carthamus Tinctorium.*
37.	*Khurasānī*	*Guizotia Abyssinica.*
38.	*Khirāde*	Possibly Kharate-brooms.
39.	*Methī*	See the Botanical name in the *supra.*
40.	*Mustard*	
41.	Bullocks	
42.	She-Buffaloes	
43.	Fine cloth	
44.	*Munga*	
45.	*Math*	*Phaseolus aconitifolius.*
46.	*Ambādī*	*Crotalaria Juncea.*
47.	*Linseed*	
48.	*Surji*	
49.	Mares	
50.	*Sigru or Yāredī*	Young one of a mare.
51.	Small or big horses	
52.	*Barī* (Varī/Varai)	
53.	Tobacco	
54.	Rugs	
55.	Iron filings	
56.	Cotton	*Ruī* in Marāthī, meaning seed-removed cotton.
57.	Husks of grains	
58.	Dried fishes	
59.	*Sendūr*	
60.	Cardamoms	
61.	Wax	
62.	Sugar	
63.	Seeds of *bhilawā*	(*Bibā* in Marāthī).
64.	Plantains/Bananas	

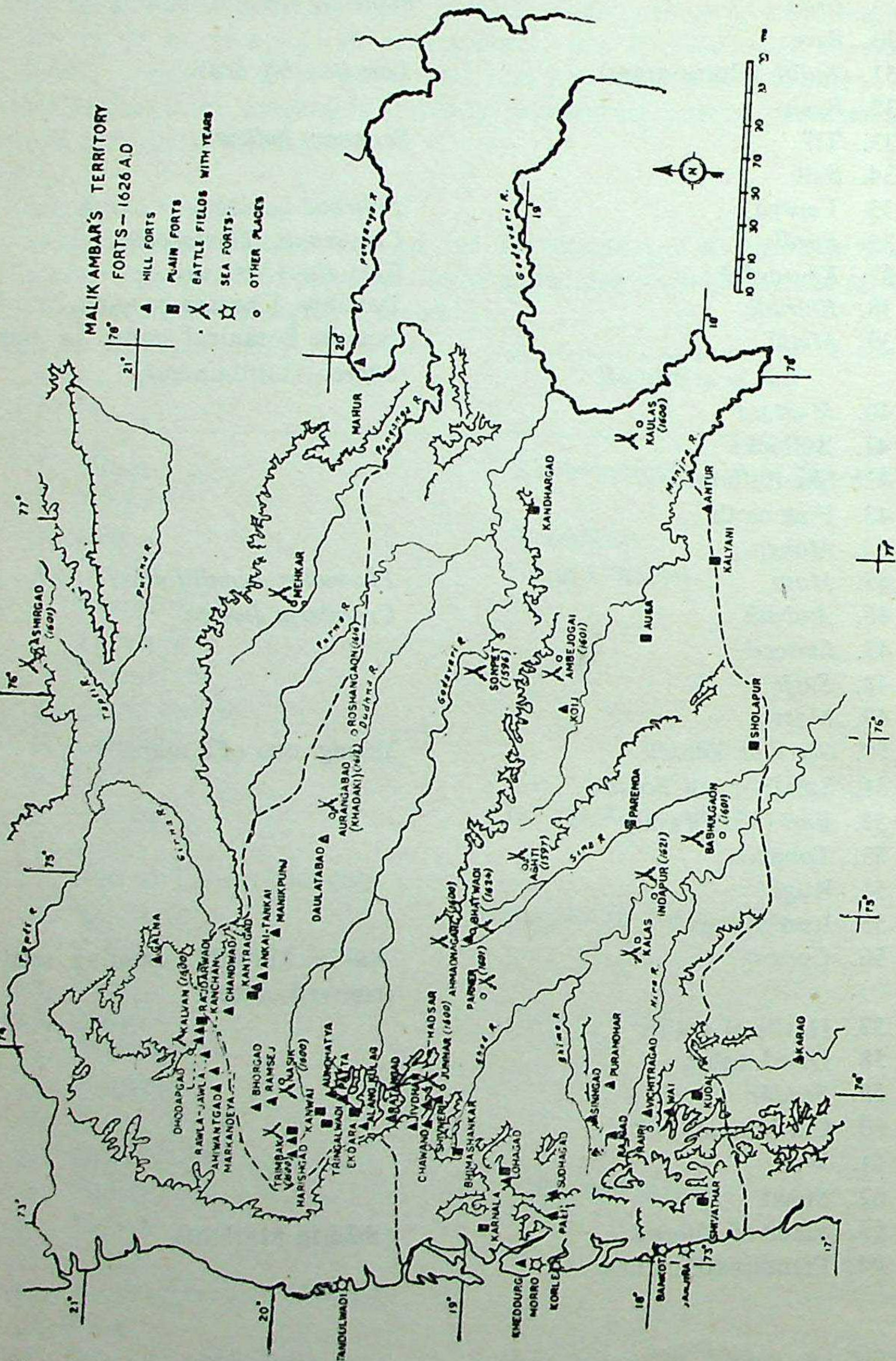
MALIK AMBAR'S TERRITORY
FORTS – 1626 A.D
HILL FORTS
PLAIN FORTS
BATTLE FIELDS WITH YEARS
SEA FORTS
OTHER PLACES
21°
20°
19°
18°
17°
73°
74°
75°
76°
77°
78°
0 10 20 30 40 50
N
Tapti R.
Purna R.
Girna R.
Penganga R.
Purna R.
Dudhna R.
Godavari R.
Sina R.
Bhima R.
Nira R.
Manjra R.
Krishna R.
ASHIRGAD (1601)
GALNA
KALVAN (1600)
RAJDARWADI
KANCHAN
CHANDWAD
KANTRAGAD
ANKAI-TANKAI
MANIKPUNJ
DHODAPGAD
RAWLA-JAWLA
AHIWANTGAD
MARKANDEYA
BHORGAD
RAMSEJ
NASIK (1600)
TRIMBAK (1600)
HARISHGAD
KANWAI
AUNDHAPATTA
TRINGALWADI
EKDARA
DAULATABAD
AURANGABAD (KHADAKI) (1612)
ROSHANGAON (1616)
MEHKAR
MAHUR
KANDHARGAD
KAULAS (1600)
ANTUR
KALYANI
AUSA
SHOLAPUR
PARENDA
BASHKGAON (1601)
INDAPUR (1621)
KALAS
ASHTI (1597)
BHATWADI (1624)
AHMADNAGAR (1600)
PARNER (1601)
SONPET (1596)
AMBEJOGAI (1601)
KOIL
HADSAR
JUNNAR (1600)
SHIVNERI
CHAWAND
JIVDHAN
BHIMASHANKAR
LOHAGAD
KARNALA
SUDHAGAD
PALI
KORLE
MORRO
KHEDDURG
TANDULWADI
SINHGAD
PURANDHAR
RAJGAD
RAIRI
VICHITRAGAD
WAI
KUDAL
KARAD
SHIVTHAR
BANKOT
JANJIRA

FIG. 12.3 : *Malik Forts*

(d) *Chaul*

Numerous varieties of commodities available for sale and export serve to throw into bold relief the commercial significance of Chaul. Some additional details, embodied in Durate Barbosa's description of Chaul, are highly interesting. He writes "………in the months of December, January, February and March, there are many ships from Malabar country and all other parts which arrive with cargoes. That is to say, those of Malabar laden with coconuts, arecas, spices, drugs, plam, sugar, emery, and there they make their sales for the continent and the kingdom of Cambay; and the ships of Cambay come there to meet them laden with cotton stuffs and many other goods, which are available in Malabar, and these are *bartered* for the goods which have come from Malabar country. And on return voyage, they fill their ships with wheat, vegetables, millets, rice, sesame, oil of sesame, of which there is much in the country and these Malabarese also buy many pieces of muslin for women's head-dress and beyranies (?) of which there are plenty in the kingdom. A large quantity of copper is sold in this port of Chaul and at a high price, for it is worth twenty ducatas the hander-weight, or more because in the interior money is made of it and it is also used throughout the country for cooking pots. There is also a great consumption of quicksilver and vermillion for the interior and for the kingdom of Gujrat. Copper, quicksilver and vermillion are brought to this place by Malabar merchants, who get it from factories of the king of Portugal and they get more of it by way of Makkah, which comes from Diu. These people wear the beyranies put on for a few days nearly in the raw state and afterwards they bleach them and make them white and gum them to sell abroad and thus some of met with amongst them which are torn. In the port of Chaul, there are few innabitants except during three or four months of the year, the time of putting in cargo, when there arrive merchants from all the neighbourhood and they make their bargains during this period and despatch their goods and after that to return to their homes, until the next season, so that the place is like a *fair* in those months. There is a Morish gentleman as governor of the place, who is a vessal of the king of the Deccan, and collects his revenues and accounts to him for them" (*Stanley*, 1866).

(e) *Coutrā Umbare*

Besides these market-places, there is a pointed reference to Coutrā Umbare (Umbariyā) of *Sammat/Sarkār* Junnar as a prosperous market-place (*Quarterly*, *Bhārat Itihās Samshodhak* Mandal, Pune, 1954). This place prospered to such an extent as to yield a revenue of 9 lakhs and hence acquired the name of nav-lakh Umbare (*i.e.*, Umbare yielding 9 lakhs) early in the eighteenth century (*Ibid.*).

(f) *Routes*

There are a few references to routes and movement of goods and men from particular regions and places and modes of transport. Routes of merchants to Panvel, Peṇ, Kalyāṇ, Bhivandī, Revādandā, Sāngavī, Virjī, Kokaṇa, Tal-Kokaṇa, Ghāts, seaside and Havelī (in the vicinity of Puṇe ?) from and to Chaul occur in a contemporary document (*Śiva-Charitra-Sāhitya*, 1953). Modes of transport of marchandise mentioned were boats (known as *galbats* and *hodīs*), particularly for bulk transport of rice, fuel and wood, caravans (of bullocks), horse-back, *dolī* (shoulder loads) (*Ibid*.). Metal workers purchased iron, and others bought beads, molasses from the Bālāghāt region and also copper, scrap metals, tin, lead, brass and bronze from Bālāghāt region (*Ibid*., 1944) for sale at Chaul.

IV. URBAN CENTRES AND ROUTES

(a) *Classification*

The suffix or prefix, *namely*, *Peth*, is indicative of market or commercial centres, *Kasbā* signifies a township and *Bandar* is suggestive of river or sea-port or harbour. These *three* prefixes and suffixes of place-names point to the definite conclusion that at least three functional characters of urban centres were recognised in the contemporary period. It cannot be ascertained with any degree of certainty what was the criterion for determining the status of any settlement to be ranked among urban centres. The only choice left to any scholar is to accept the recorded names of settlements having the epithets of '*Peth*' and '*Kasbā*' or '*Kasabā*' as urban centres of the contemporary period.

To these three functional categories of urban centres may be added administrative centres which included the State capital and headquarters of *Parganā*, *Sarkār*, *Māmle*, *Sammat*, *Tarf* and similar administrative units.

On the Fig. 12.4 some unclassified towns are also inserted as no positive information for their classification is available and, most probably, most of them were predominantly residential without any other distinguishing functional characters and some were regional centres for the collection and distribution of agricultural produce of their proximity except for Ahmadnagar and Khadakī (now, know as Aurangābād), most of the towns in the Nizāmśāhī kingdom appear to be small in areal extent and population-size. Ahmad Nizāmśāh, the founder of the dynasty, build his capital at the village, known as Bingar (Bhingar), situated equidistant between Junnar and Daulatabad. "So great exertions were made in erecting buildings by the king and his dependents, that in a short space of two years the city rivalled Bagadad and Cairo..." (*Briggs*, 1910).

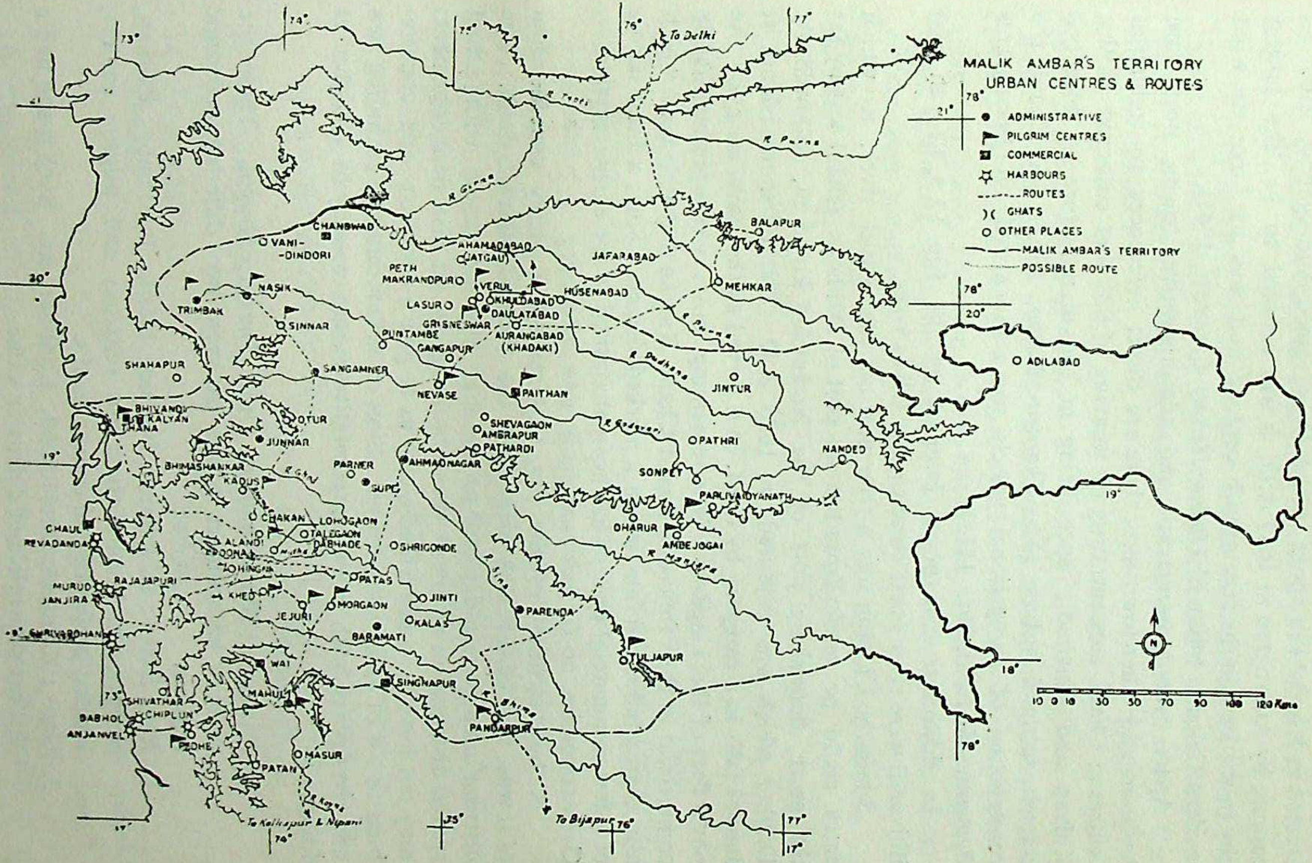
MALIK AMBAR'S TERRITORY
URBAN CENTRES & ROUTES
● ADMINISTRATIVE
▶ PILGRIM CENTRES
▣ COMMERCIAL
☆ HARBOURS
------ROUTES
)(GHATS
○ OTHER PLACES
——— MALIK AMBAR'S TERRITORY
...... POSSIBLE ROUTE
10 0 10 30 50 70 90 100 120 Kms
N
73°
74°
75°
76°
77°
78°
21°
20°
19°
18°
17°
To Delhi
R. Tapti
R. Purna
R. Girna
R. Purna
R. Dudhana
R. Godavari
R. Manjira
R. Sina
R. Bhima
R. Ghod
R. Mutha
R. Koyna
BALAPUR
MEHKAR
JAFARABAD
HUSENABAD
AHAMADABAD (JATGAU)
CHANDWAD
VANI-DINDORI
PETH MAKRANDPUR
VERUL
KHULDABAD
DAULATABAD
LASUR
GRISNESWAR
AURANGABAD (KHADAKI)
PUNTAMBE
GANGAPUR
NEVASE
PAITHAN
JINTUR
ADILABAD
NANDED
PATHRI
SONPET
PARLIVAIDYANATH
DHARUR
AMBEJOGAI
TULJAPUR
PARENDA
PANDARPUR
To Bijapur
SINGHAPUR
SHEVAGAON
AMBRAPUR
PATHARDI
AHMADNAGAR
SHRIGONDE
JINTI
KALAS
BARAMATI
MORGAON
JEJURI
PATAS
KHED
HINGNA
POONA
ALANDI
TALEGAON DABHADE
LOHOGAON
CHAKAN
KADUS
SUPE
PARNER
BHIMASHANKAR
JUNNAR
OTUR
SANGAMNER
SINNAR
NASIK
TRIMBAK
SHAHAPUR
BHIVANDI
KALYAN
THANA
CHAUL
REVADANDA
MURUD
JANJIRA
RAJAJAPURI
SHRIVARDHAN
WAI
MAHULI
MASUR
PATAN
SHIVATHAR
CHIPLUN
DABHOL
ANJANVEL
PEDHE
To Kolhapur & Nipani

FIG. 12.4 : *Malik Urban Centres and Routes*

After the fall of Ahmadnagar in 1600 A.D., a new capital city was erected at Khadakī in about 1610 A.D., renamed Aurangabad, after its capture by Aurangzeb in 1633 A.D. It was claimed to be 'the largest city in the East in the seventeenth century and was as large as what modern Calcutta today is' (*Indian History Congress*, 1941).

Apart from commercial and administrative, towns, ports and harbours and other townships, there are direct references to industrial centres at Chaul, concentrating on weaving of Silk and coloured cloths, Kalyāṇ and Bhivandī, specialising in the manufacture of bleached cottons, *sale* and turbans (*Śiva-Charitra-Sāhitya*, 1953). At Chaul, the construction of navigational vessels was also carried on (*Documentes Remetides da India*, No. 1115).

In addition to nine ports, inserted on the Fig. 12.4, Kalyāṇ and Bhivandī were river ports close to the Ulhās river.

Similarly, Chiplūṇ was a river port on the Vāṣitī river, to which entry could be made from the sea-port of Dābhol. Chaul was by far the most flourishing port of the Nizāmśāhī kingdom, followed by Dābhol, which was captured in 1625 A.D. The off-shore island of Janjirā falls in a category by itself, as it served as the naval base of the naval fleet of the kingdom. The remaining ports were predominantly commercial in their function, except Chaul, Kalyāṇ and Bhivandī which also shared industrial function in a marked degree. Since a brief survey of a few commercial centres has been attempted in the earlier section on Geo-economics, no further analysis is, now, necessary.

A close scrutiny of the Fig. 12.4 reveals a heavy concentration of towns, west of the Sīnā river and the Pūrṇā-Godāvarī doab. The distributional pattern depicted on the map may not match with actual spatial distribution of towns, then obtaining, as all historical documents may not have been unearthed so far as to give a complete and comprehensive list of all existing towns. Sites of urban centres, excluding sea and river ports, with a few representative examples, may be classified as follows :

1. *Piedmont* : Bhīmāshankar, Otūr, Junnar, Hingnī. These are more or less contact towns between two differing economic regions.
2. *River banks* : Sangamner, Nevāse, Nāśik, Puntāmbe, Paithaṇ, Sonpet, etc. Most of these are religious and pilgrim centres, located preferably on convex banks.
3. *Gaps* : Khadakī, Daulatābād, Kandhār, etc. Such a site had a distinct strategic and defensive value.
4. *Spur-edges* : Singṇāpur, Dhārūr, etc. These sites also partake of defensive points on account of their ability to command an extensive view of adjacent country from them.

5. *Doabs* : Sinnar, Pārner, Supe, Jejurī, etc. These may be regional centres for the collection and distribution of agricultural produce of their surroundings in rice and fertile tracts.

It is surprising to note that there are no recorded typical confluence towns with the solitary exception of Cāngāpur on the map. This category of sites bears a close resemblance to towns on river-banks or those situated in doabs.

(b) *Pilgrim or Religious Centres*
Religious and pilgrim towns fall in a category of urbanisation by themselves. Only those places to which direct or indirect references occur in the contemporary historical records have been plotted on the Fig. 12.4. In the following Table, the available names of deities at places concerned have been mentioned :

Sr. No.	Name	Deity/Saint
1.	Thānā (Old name : Sthānaka)	Unrecorded.
2.	Bhimāshankar	*Mahādeo.*
3.	Khed (Khetaka)	*Siddeshwar* (*Gupte*, 1946). (Fair held on Mahāśivarātrī day).
4.	Māhulī	Unrecorded.
5.	Kadūs	-do-
6.	Ālandī	Tomb of *Gyaneshwar.*
7.	Nevāse (Nidhīwās)	*Mahāmāyā Devi.*
8.	Jejurī	*Khandobā.*
9.	Morgaon	*Gaṇapatī.*
10.	Nāśik	*Kālārām.*
11.	Sinnar (Sindhīnagar) (Must have been an extensive town in the Yadava Period)	*Aieśwara* (*Śiva-Bhārat*, 1927). (Fair held in *Viaśākha* at the confluence of three rivers, Dev, Śiva and Saraswatī).
12.	Paithan (Pratiṣthān)	
13.	Pārlī	*Vaidyanāth.*
14.	Āmbejogāī	*Ambādevi.*
15.	Tuljāpur	*Bhavānī.*
16.	Pandharpur	*Vithobā* (Fair held on *Kārtik* Dark fortnight-11th).
17.	Verul	*Grisneśwar.*
18.	Khuldābād	Muslim religious centre in the Deccan.

Pedhe lay close to the southern boundary of the Nizāśāhī kingdom. It is famous as the *Paruśrām-Kśtra*. The above list does not exhaust completely the names of all religious and fair centres, as there may be less known and unrecorded places of this category.

Routes were merely tracks on the ground, periodically maintained in a state of repairs by the State. Most of the routes lay along or close to rivers as they offered easy passage-ways for commercial traffic in regions of prosperous economic conditions with their superior traffic generating capacity. Most of the routes seem to be aligned on river-terraces or piedmont zones to avoid swampy or slushy ground. The placement of routes on margins of forested tracts could facilitate fodder-supply to transport animals *en-route*. At junctions of routes, their destinations were indicated on inscribed stone-blocks or pillars. As routes were infested with highway robbers, the State undertook the responsibility of providing escort to the circulation of animals or throngs of bullock-carts. The routes athwart the Sahyādrī range lay from the east to the Kokaṇa lowland through numerous passes, normally guarded by *Chaukīs* or check-posts and forts. Some of these passes could be negotiated by laden bullocks and horses, and even carts, but others had only footpaths (*Joshī*, 1954).

A minute examination of the Fig. 12.4 unfolds that the environs of Pune constituted by far the most outstanding nodal centre with routes radiating in all directions, followed by the next significant hub of routes converging on Khadakī.

The ancient route, aligned past Junnar into the Kokaṇa lowland, passing through Paithaṇ and Thair to the mouth of the Krișnā river, still remained frequented by which the Dutch traveller, Van Ravestyn journeyed to Malik Ambar's camp for an interview with the latter in 1615 A.D. (*Wādekar*, 1931). There are recorded references to the following trade routes also :

(i) Vīrji Route - (*Śiva-Charitra Sāhitya*, 1957-58).
(ii) Hātlota, Pārghāt, Pānī, (?), Pālī, Āmbe Pār (?), Wāī (*Ibid.*.
(iii) The Khāndesh Route : Surat, Navāpur, Nandurbār, Dondaichā, Sindakheda, Thālner, Chopadā Sangavī, Nhāvi, Burhānpur to Delhi. (Seventh Annual Proceedings of *B.I.S.N.*, 13.).

In conclusion, it may be stated that the details incorporated in this paper give fair glimpses, though not complete and exhaustive analysis of Geo-politics, occupations, industries, marketing activities, character and pattern of urbanisation and other cultural features in the Nizāmśāhī kingdom during Malik Ambar's regime.

NOTES

1. In a document of religious grant by Mālojī Rāje Bhonsle and Bābājī Konher Diwāṇ in 1005 A.H./1596-97 A.D., there is a reference to land south of the Choulakar (Chelekar), which lends support to the conclusion that the territory in the vicinity of Chaul was lost by the Nizāmśāhī Kingdom before 1599 A.D. (*Bendre, V.S.* : Mālojī Rāje and Shāhjī Mahārāj, 1967).
2. There are *two* groups of *twelve* Mawals as follows :

   (i) *The Northern Mawals* : 1. Junnar, 2. Minnar, 3. Ghodner, 4. Sinnar, 5. Bhāmner, 6. Jāmner, 7. Śivaner, 8. Pimpalner, 9. Pārner, 10. Sangamner, 11. Bhimner and 12. Akolner.

   (ii) *The Southern Mawalas* : 1. Andaramāwala, 2. Nānemāwala 3. Pavanmāwala (sometimes written as Paun), 4. Ghotanamāwala, 5. Paundamāwala, 6. Mosekhore, 7. Muthekhore 8. Gujanamāwala, 9. Welwandamāwala, 10. Bhoramāwala, 11. Shivatamāwala and 12. Hiradasamāwala.

   A close security of the geographic position of mawals reveals their enclosed, inaccessible and forested character of the valleys of streams, east of the Sahyādrī range, close to its major watershed. Normally, the tr. ditional region of the twelve Māwalas to which frequent references occur in the history of Mahārāṣtra is this group.
3. The plain tract in the proximity of Puṇe.
4. West of the traditional region of Kalinga. east of the Bālāghāt Plateau, south of the Godāvarī river and north of the Telgu Codes of Anantpur-Cuddapah area.
5. According to Firishtah, to the existing territory of the Nizāmśāhī kingdom were added (1) Chāwund, Lohgur, Toong (?) Tikonā (?) Kondhānā (Sinhgad), Poorandhar, Bhorup, (Bhogur ?), Joodhan, (Jīvadhan), Murunjan, Moholyn (Māhulī ?) any Pally (Pālī), (2) Kokaṇ and (3) Indāpur.
6. The *Akbar-Nāmā* states that Sarkār Udesa (Orissa), Dhārwār (Dhārūr) and part of Bīr were left to Nizāmśāh. Orissā and Dhārwār are not possible tracts left to the Nizāmśāh, but Ausā and Dhārūr are likely.
7. The reader would be interested to know that early in the 19th Century the British raised a Bhil Corps in Khāndesh with a view to suppressing their lawlessness and utilising their martial qualities (Dr. N.H. Kulkarnee, SWARBICA Journal, No. 2, 1979).
8. Available with the courtesy of the Bhārat Itihās Samshodhak Mandal, Puṇe.
9. Nilotarī seems to be blue cloth kept on shoulders on the occasion of funeral rites.
10. A variety of sandal woods referred to, *namely*, Malyagirī Subhadānī, Pachkaṇī and Pantanga (*Caesalpinia*). By Sanskrit authors *Sappen* is often treated as a form or quality of sandal wood.
11. Information furnished by Prof. K.L. Mahaley, History Department, Vidarbha Mahāvidyālaya, Amravātī, now, at Aurangābād.

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13

Periodic Marketing System in Mediaeval Maharastra*

ABSTRACT

THE paper highlights some aspects of evolutionary changes in the periodic marketing systems, with needs of producers and consumers, the organisation of time, inertia and their comparative advantages. The available evidence in support of exogeneous origin of periodic market-place exchange systems has been cited. Marketing-places evince marked tendency towards stability, when interlinked with efficient means of transport system in existence under favourable conditions of peace and order.

INTRODUCTION

The existing periodic marketing systems in Mahārāṣtra, in particular, and in India, in general, are an outgrowth with recognisable modified patterns of the past marketing systems, consequent on the evolutionary changes in socio-economic variables. Marketing in India may be traced back to dim antiquities of the country. The external commercial links with adjacent countries and southern India had been forged by the *Paṇīs* in the Vedic times, who were ancestors of the *Phoenicians* and who had finally settled on the Syrian coast. The ship-building *Paṇīs* were merchants on land and sea, who exchanged livestock of India with valuable articles of adjacent countries (*Billimoriā*, 1940). There seems to be no explicit reference to the contemporary internal marketing system.

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In the days of *Pāṇini* (about the 8th Century B.C.), not only external links persisted but also inter-regional trade had begun to thrive, particularly in northern India, with fixed shops and warehouses at trading settlements (*Agrawāl*, 1941). *Kautilya's Arthsaśātra* embodies an explicit reference to the establishment of market towns as an integral part of the functions of the State (Kāngle, 1972). During the hey-days of caves (*leṇās*) in Mahārāṣtra, extending from the 6th Century B.C. to 11th Century A.D., internal and external trade in Western India witnessed an impressive prosperity with the growth of well-knit internal trade centres from the sea-coast to the interior (*Mahāley*, 1973). As the principal accent in this paper is laid on periodic marketing systems in Mahārāṣtra, all other aspects of marketing systems fall outside its scope.

Hypothesis, Methodology and Model

The existing periodic marketing systems in Mahārāṣtra have their roots in the past and have suffered recognisable and visible transformations with changing socio-economic variables, resulting in their present-day patterns.

Based on the extant and available data in historical documents, a critical analysis has been made to test and verify the hypothesis formulated above.

It is believed that periodic market-places result from and persist because of needs of producers and consumers, the organisation of time, inertia and comparative advantages (*Bromley, et al.*, 1975).

The Needs of Producers and Consumers

Most of the earliest traders were producers, seeking an outlet for the exchange of their goods with needy consumers, who were also producers in their own right. Evidently, early market-places were adapted to the producer-consumers, trading part-time, rather than to the needs of full-time traders, with little marked division of labour, probably, except in case of settlements, known as *Māchīs*, (*Joshī*, 1937). Such settlements grew in the immediate proximity of forts, particularly with hill-top locations in Mahārāṣtra, which catered to the daily and occasional needs of the military forces garrisoned in these forts and *mobile* markets, following on the heels of the Moghul army on the march (*Irvine*, 1962). The last-named example is an instance of mobile marketing system in which groups of travelling *Banjārās* activily participated.

The wide variety of commodities available for sale at market-centres included grains, other foodstuffs, vegetables, fruits, articles of grocery, sugar, jaggery and molasses, flavouring substances. textiles, garments of cotton, silk and wool, fuel, timber including bamboos, fishes, fishing nets, navigational vessels, articles of religious worship, furniture, livestock

(*Tāmaskar*, 1975), salt (*Mujumdār*, 1930), medical herbs, as well as honey and cotton. One of the unique and notable features of marketing transactions was the sale of slaves and bondsmen (*Āvalaskar*, 1954).

The Organisation of Time and Place

Apart from the mention of the day of market thrice in a document (*Āvalaskar*, 1954), indicative of periodicity of market-places there is unfortunately almost total lack of further evidence about the marketing calendar and rings of travelling traders, although it can be safely presumed that, as in the present days, the market week normally comprised of seven days, with a day or two for rest taken at residential places by travelling traders at their own choice. The spatial epithets, *namely*, 'Peths' and 'Choutare' (Choutre), added to place-names evidently indicate the occurrence of market centres at them (*Purandare, et al.*, 1938). The spatial distribution of some of the market places in the immediate vicinity of forts, known as *Māchī*, is one of its noteworthy pattern (*Ibid.*, 1938) to which an earlier reference has been made. The contemporary historical records reveal scattered references to a number of market places, such as Revādandā, Sāvangī, Virjī, Chaul, Aṣthamī, Rohe (Rohā), Bīrwādī, Petha Shāhbāja, Petha Rustamābāda, Kasbā Chāndwada, Pena, Chaula (*Tāmaskar*, 1975), Solāpura (*Joshi*, 1937) Otūra (*Potdār, et al.*, 1930), Wāī (*Śiva-Charitra-Sāhitya*, V, Article 836), Athanī, Petha Bankāpura (*Potdār, et al.*, 1930), Petha Sharzāpura (*Ibid.*, Article, 373), Petha (*Ibid.*), Joharāpura, (*Ibid.*, Article, 384), Kasbā Sāswada (*Oturkar*, 1949), Village Belsara (Karyāt/Kasba Sāswada?) (*Ibid.*), Village Bāhule Khurda (*Ibid.*) (Prānta Śevgāon), Village Muratī (Prānta Supe). Kasbā Vāmborī (*Ibid.*), (Prānta Sangamner), Kasbā Tulāpura, (*Ibid.*), Petha Amrāpura (*Ibid.*) (Prānta Śevgāon), Village Jejurī (Tarf/Tape, Karhepathār), Village Pimpalgāona (Prānt Chāndwada) (*Ibid.*), Village Garāde (Tarf/Tape ? Karhepāthāra) (*Ibid.*), and Petha Husainābāda (Māmle Murtazābāda), (*Purandare, et al.*, 1938) and *Choutares* or tax-platforms at Umbare (*Tāmaskar*, 1975), Lohgāu, Chintolī, Pātasa and Rājori (*Sardesāī*). The *Pethas* or *Choutares* appear to be counter-parts of the present-day *Mandīs* or large regulated markets, where an elaborate marketing organisation obtained in the Mediaeval times. A document of the Peshwā regime spotlights the existence of petty permanent shops of grocery, edible oils, etc., at some villages (*Joshī*, 1939). This document serves to highlight also self-contained village communities of the contemporary times wherein for sixteen festive occasions in each year, the whole village acted as corporate unit (*Ibid.*). It is not surprising that the close scrutiny of the list of market-places cited above embodies a few village market-places of the beginning of the second half of the eighteenth century A.D., apparently with relative peace, order and

In the days of *Pāṇini* (about the 8th Century B.C.), not only external links persisted but also inter-regional trade had begun to thrive, particularly in northern India, with fixed shops and warehouses at trading settlements (*Agrawāl*, 1941). *Kautilya's Arthsaśātra* embodies an explicit reference to the establishment of market towns as an integral part of the functions of the State (Kāngle, 1972). During the hey-days of caves (*leṇās*) in Mahārāṣtra, extending from the 6th Century B.C. to 11th Century A.D., internal and external trade in Western India witnessed an impressive prosperity with the growth of well-knit internal trade centres from the sea-coast to the interior (*Mahāley*, 1973). As the principal accent in this paper is laid on periodic marketing systems in Mahārāṣtra, all other aspects of marketing systems fall outside its scope.

Hypothesis, Methodology and Model

The existing periodic marketing systems in Mahārāṣtra have their roots in the past and have suffered recognisable and visible transformations with changing socio-economic variables, resulting in their present-day patterns.

Based on the extant and available data in historical documents, a critical analysis has been made to test and verify the hypothesis formulated above.

It is believed that periodic market-places result from and persist because of needs of producers and consumers, the organisation of time, inertia and comparative advantages (*Bromley, et al.*, 1975).

The Needs of Producers and Consumers

Most of the earliest traders were producers, seeking an outlet for the exchange of their goods with needy consumers, who were also producers in their own right. Evidently, early market-places were adapted to the producer-consumers, trading part-time, rather than to the needs of full-time traders, with little marked division of labour, probably, except in case of settlements, known as *Māchīs*, (*Joshī*, 1937). Such settlements grew in the immediate proximity of forts, particularly with hill-top locations in Mahārāṣtra, which catered to the daily and occasional needs of the military forces garrisoned in these forts and *mobile* markets, following on the heels of the Moghul army on the march (*Irvine*, 1962). The last-named example is an instance of mobile marketing system in which groups of travelling *Banjārās* activily participated.

The wide variety of commodities available for sale at market-centres included grains, other foodstuffs, vegetables, fruits, articles of grocery, sugar, jaggery and molasses, flavouring substances. textiles, garments of cotton, silk and wool, fuel, timber including bamboos, fishes, fishing nets, navigational vessels, articles of religious worship, furniture, livestock

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At most of *Pathas* and *Choutres* warehouses and godowns of wholesalers for bulk commodities were constructed and petty dealers retailed these commodities on the market day to buyers.

Two distinct references to market meeting held on Mondays, one probably at Sāswada and another at Mārutī (Prānt Supe) in the 18th century, have been unearthed in extant historical documents (*Oturkar*, 1949). The periodicity of market-places is confirmed by another reference to the market meeting on Tuesdays at Solāpur (*Joshī*, 1937).

It may be surmised that boundaries of the actual site of exchange of commodities were delimited for the exercise of power and authorities of marketing officers and officials (*Āvalaskar*, 1954).

At townships and towns, not unlike today, permanent and fixed shops obtained, though periodic market meetings also occurred at these places (*Āvalaskar*, 1954). At the port of Chaul, periodic marketing activities were confined to the months of December, January, February and March with its foreland extending over Gujarāt, Malabār, Arabia and Portugal (*Stanley*, 1866). Besides, there were annual or seasonal fairs held, at wide intervals of time, at many religious or pilgrim centres such as Thānā, Bhīmāshankār, Khed, Māhulī, Kadus, Ālandī, Newāse, Jejurī, Morgāon, Nāsīk, Sinnar, Paithan, Pārlī, Āmbejogāī,, Tuljāpur, Pandharpur, Verul, Khuldābād (*Tāmaskar*, 1975), Gangāpur, Pedhe, Tryambakeshwar, etc. (*Māte*, 1962).

It may be safely concluded that the marketing systems of Mediaeval Mahārāṣtra encompassed daily markets with permanent and fixed shops and stalls, periodic market-places associated with temporary stalls of travelling traders, seasonal markets at places like Chaul and fair centres and annual markets at religious or pilgrim centres to which may be added the *mobile* markets, consisting of camp-followers of the Moghul forces and subsequently camps of Maratha armies on the march (See Note at the end).

The spatial organisation of periodic market, places was manned by two distinct hierarchical categories of official functionaries : *Firstly*, supervisory and superintending authority and *secondly*, participant assistants in actual marketing activities and transactions. At the highest rung of the official ladder was the Prefect of a mart (*Shete*), Clerk/ Secretary (*Mahājan*), and Message-bearer (*Choudharī/Chougule*) in whom general supervision, superintendence and control of markets was vested. *Pansare*, *Patakī*, *Dānī*, *Ghātpāndes* were other perquisite-holders of a market-place (*Purandare et al.*, 1938). *Āwate* (*Oturkar*, 1949) superintendent of weights and measures and *Bidwaī* (*Purandare et al.*, 1936) security officer of the market were additional official functionaries. Brokers (*Dalāls*) (*Mujumdār*, 1930) were active middle-men between wholesalers or warehouse owners or keepers and retailers. *Metkarīs* (*Joshī*, 1939) were government official guards to protect marching caravans of bullocks. *Sarāfs* or bankers and financiers played a distinct role in aiding marketing transactions (*Oturkar*, 1949). The elaborate administrative and controlling machinery for the maintenance of peace and order, suppression of crimes (*Āvalaskar*, 1958), sequence of stalls (*Oturkar*, 1949), price control (*Ibid.*), reporting of market prices, supervision over coinage, weights and measures (*Ibid.*), collections of taxes and toll duties (*Ibid.*), etc., speaks of well-meant regulatory measures, undertaken for proper and smooth working of the well-developed marketing system.

Inertia and Comparative Advantages

The mediaeval marketing system with minor changes and accretion of new market-centres, (*Ibid.*) revival and rehabilitation of those held in abeyance (*Āvalaskar*, 1954) and abolition of a few old ones, harks back to *Mackinder's* dictum that "no human settlement is more difficult to supplant than an established market" (*Bird*, 1948). Obviously, market location and periodicities cannot be explained by present-day patterns. One must trace back the establishment of the first market-places, their period of existence and search for the comparative advantages they possessed when other market-places came into being. "Even the earliest market-centres had scale economies and other perceived advantages for traders and consumers. So established market locations and periodicities have a strong tendency to persist" (*Bromely, et al.*, 1975). Some handicaps of market sites and timings were eventually supplanted, but circular and cumulative causation reinforced the importance of initially successful market-places. Inertia, probably, retarded the adjustment of market systems to new developments, put off changes in market locations and periodicity and facilitated the persistence of traditional market patterns.

The Modes of Transport

The marketable commodities were transported as head loads, shoulder loads, bullock loads, donkey loads and carried in seagoing vessels and boats to sea-ports and river-ports respectively.

Market Origins

In an earlier reference, we have mentioned the existence of self-sufficient and self-contained village communities in which "instead of money economy there was the barter system wherein exchange of services and articles was the common feature" (*Bālkrishna*, 1940). This acted as a heavy constraint on the growth and development of internal marketing system. It cannot escape one's attention that even market cesses and taxes were collected partly in kind, particularly on grains, grocery, glass, turmeric, resin, combs, basketry, articles of bamboos, coconuts, sugarcane, yarn, fresh and dried fishes, jaggery or gur, footwares, dates, incense, etc. (*Āvalaskar*, 1954). The needs of farmers were met by the services of *Mahār*, *Māng*, Barber, Washermen, astrologer-priest, *Gurav*, etc., and by articles made by the shoemaker, carpenter, potter, oilman, etc. (*Bālkrishna*, 1939).

The endogenous theory of markets origins, *that is*, an individual's propensity to barter creates a need for local small-scale exchange, and subsequently, local trading activities increase and generate external relations and long-distance trade (*Hodder*, 1965), does not seem to apply to and to be valid in this particular case. A competing "exogenous theory", reversing the order of events, argues out that trade and market-places cannot originate from local demands, but must be based on external relations. Local market-places witness their origin from the stimulus of outside traders and availability of external goods (*Polanyi*, *et al.*, 1957).

The evidence of the marketing systems of the Mediaeval Mahārāṣtra lends support to the exogenous theory to market origins, pointing to a close association between the growth of markets and the development of regular and unhindered inter-regional communication.

A few examples of how interruption in communication, caused by adverse disturbed conditions at some places, reacted unfavourably in their marketing activities, may be culled out here to illustrate the phenomenon. The Portuguese complained bitterly in 1588 A.D. that the trade had passed from Diu to Chaul because the Nizāmśāh gave free access from and exit to the sea, while increasing the duties on inland trade (*Tāmaskar*, 1972). In order to resuscitate the trade which had declined in case of market-place at Petha Rustamābād near Chaul, remissions in taxes were granted in 1643 A.D., after the place had experienced disturbed conditions during Malik Ambar's regime (1600-1626 A.D.), due to intercine warfare (*Āvalaskar*, 1954). During the Moghul invasions to the south in the latter half of the eighteenth century, the Petha at Athanī for four years remained in a state of utter ruins (*Potdār*, *et al.*, 1930) and Petha Sarzāpur did not also remain immune from the destructive activities of the Moghul army (*Ibid.*). This points to the conclusion that for unbroken and sustained growth and development of marketing activities, peace, order and security were their life-blood.

In initial stages, market-place may be seen to play a marked limited socio-economic role, and market sales could not be the dominant source of material livelihood of the entire economy (*Bohnnan*). Few people were and still are engaged in producing for the market or selling in the market as a full-time job and most of them, particularly those belonging to the farming class, are only part-time market-places. Their main source of livelihood continues to be still agrarian economy.

The existing nominal division of labour in the contemporay self-sufficient and self-contained rural communities could hardly make its impact to stimulate exchange economy (*Belshaw*, 1965), except when the isolation of village communities was shaken off by increased means of communication and growing volume of traffic flow.

One can hardly dispute the observed phenomenon that "markets normally originated in stratified societies with sharp divisions of labour and strong external links and influences. External traders played an important role stimulating local trade foundations, and most local participants in early markets were engaged in economic activities outside the market-place" (*Bromley, et al.*, 1975).

Standardisation of Time and Place

It needs hardly to be told that where market-places first developed, exchange of goods demanded a mutually convenient time and place, and one of the two parties, *namely*, traders or consumers, or both, had to come to a mutual agreement to visit a common place. With the spread of information about this agreed place of exchange, potential traders and consumers had a common knowledge of the place/places of meeting/meetings (*Bohnnan*, 1959). The data and information culled out about periodic marketing systems throw little light on their temporal synchronization, though the knowledge regarding the spatial organisation is somewhat enlightening, despite the handicap encountered in identifying and measuring their locational spacing.

It can bear repetition to assert that local traders and buyers were usually also producers and, as such, they could not go to market-place at will. By mutual decision, they may have arrived at a commonly agreed solution to choose to trade on convenient day or days, combining marketing visit with some socio-economic opportunities at the selected place/places. Obviovsly, markets were often held periodically to synchronize with existing social processes and phenomena.

From the above discussion, it is manifest that under the overall supervision and control of the State Government, the properly instituted marketing authorities concerned themselves with the organization and taxation of marketed commodities or even commodities moving from one place to another for commercial purposes by the levy of transit duties. Of late, by the State intervention, an effort was made to change radically the temporal synchronization of periodic markets in Mahārāṣtra by which it was to hold all market meetings in rural areas on Sundays and urban areas on Tuesdays and cattle markets on Mondays. This measure was opposed by travelling traders participating in the periodic marketing system on the ground that it would curtail their trading activities with consequent loss of small regular income derived by them from the prevalent and integrated synchronization of market-places and it seems that the move has been shelved off at least for the time being, by not implementing it in practice from the date from which it was to come into force (*Tarun Bharat* in Marāthī, dated 7.3.76). The adverse effects of changing patterns of marketing systems had been envisaged also in other areas (*Bromley, et al.*, 1975). It cannot escape our attention that local authorities through a process of trial and error, after several or many efforts, had to reverse or change their decision and could achieve the existing standardisation of time and place in respect of the prevalent periodic marketing systems. A close observation and scrutiny of the market week in Mahārāṣtra, in particular, and India, in general, reveal its tenacious stability, as it provided continuity with the past traditions and showed little sign of yielding to the contemporary foreign or extra-territorial invasions or the impact of the British Rule.

Since the pointed attention of the reader has been already drawn to the primary inducement of market trade by external exchanges of complementary products with extra-regional or even alien population, security of trade was its essential pre-condition. It has been mentioned earlier how disturbed conditions adversely reacted on the contemporary marketing systems. The local authorities played a significant role in enforcing law and order in the market-place and the surrounding area.

As trade continued to prosper, market locations were increasingly based on centrality, accessibility and proximity to other services with construction of roads and railways, which by slow degrees broke down the traditional isolation of village communities to a large extent. From times immemorial, market-places are situated at communication nodes in the midst of vast rural population spread out in settlements of varying sizes. In a nutshell, the hypothesized reconstruction of the early development of periodic market-places does not run counter to the exogenous theory of market origins. Evidently, outside traders passed through less advanced areas to buy and sell and they traded and obtained commodities in areas through which they passed on their trading journeys. This induced local demand for exogenous goods and encouraged local potential traders to collect and distribute the goods brought by the long-distance travelling traders. Manifestly, outside influence served to accelerate trade and swelled the local demand for commercial institutions. However, these market-places needed to be convenient to local producers, buyers and consumers and to be standardized in time and places.

Circular and Cumulative Causation

The opening of the first market day has a close resemblance to the establishment of the first administrative centre in an area, both having the advantage of initial start. They get established to the exclusion of other possible market days and administrative centres. They hold out high promise of growth, importance and popularity normally among people who come into frequent contact with them. Their growth results in an increased variety of articles of merchandise available in a market-place and to help the spread of its reputation, which further aids to attract growing number of traders and buyers from far and near. The process of growth is circular and cumulative and only radical social or economic changes can bring about its total transformation. All the surrounding linkages of an expanding market-place create openings for new enterpreneurs, though not directly associated with it. The continued success of a market-place may call for improvements in transport facilities and services and visible division of labour and in production and consumption, all of which strengthen fully the market-place's initial success. To sum up, the initial benevolent effects of the first market-places to meet on a convenient market day serve to secure stability through the passage of time and is not in a position to be easily reversed.

"The most fundamental drawback of economic models in explaining periodic market is that they neglect most of the cognitive and decision-making processes of the very people whose behaviour they attempt to explain" (*Bromley*, *et al.*, 1975). Most human communities are conservative and offer stubborn resistance to changing established patterns. Changes in marketing behaviour are slow and are put off by slow diffusion of economic information and anticipated expectations that new-fangled ideas/actions may be short-lived. Traders, consumers as well as local authorities usually join hands to oppose changes. In the local authorities is vested the power of setting up new market-places and changing market days and they are capable of influencing marketing behaviour by their licensing and taxation policies, as indicated above. Administrative policies are calculated to perpetuate periodic marketing.

With further and continued socio-economic developments, some of the periodic market-places attain the status of continuous daily market-places or suffer decline and are supplanted by, or transformed into, permanent and wholesale warehouses. The increase in demand for perishable goods often leads to the establishment of minor market days or even market meetings of short duration, known regionally as '*Gujari*', held either in morning or evening or between principal market days, but the expanded volume of trade on main market day may outgrow into adjacent days. Urbanisation has increased the proportion of buyers able to visit market daily. A negligible number of market-places shows tendency to be wiped out of existence. Even at places having permanent shops with continuous daily marketing activities, periodic market-places have not ceased to exist and are held in open spaces, specifically set apart for them and along roads and streets.

Bromley and his associates point out that initial advantage and weight of tradition variables which are cultural and historical as much as they are economic give two economic benefits to consumers by prolonging the life of periodic market-places. One is the presence of high order goods that otherwise would not be available in a given market centre, and the other is the presence of high order goods at a greater number of locations within a given area. The total amount of higher order goods purchased is not necessarily different from what would be purchased, if market meetings were continuous (*Bromely, et al.*, 1975).

Conclusion and Observations

If this analysis be correct, the prevalent concepts about periodic market-places need a radical revision. Early traders and consumers were also producers and periodic marketing systems permitted a rational division of time between production, trade and other activities. Under the existing circumstances, it can be observed that it was efficient, logical and convenient for early market-places to be periodic and their periodicity has persisted or changed in a slight degree because of slow changes in socio-economic variables and the cumulative advantages stemming from first market-places. Time-honoured economic analysis tends to not only misread history but also ignore it totally. As a result, both the origin-conditions of periodic market-places and role of positive feed-back in the persistence of social and economic phenomena have been lost sight of. The expansion of networks of modern transport with the advent of automobiles and trains has led to growing efficiency and fast circulatory system and population explosion have resulted presumably in a closer locational spacing of market-places than obtaining in the past, retaining their essentially characteristic periodicity with well-marked expansion of money economy in the marketing structure and processes, division of labour or new mode of transport of commodities, traders and consumers in favourable locations. The hypothesis posed by us in this paper stands tested and verified in a large measure.

NOTE

"Raghoba's encampment covered a space of many square miles; the bazar, or market-place, belonging to his own division, and to the principal generals contained many thousand tents, where every trade and profession was carried on with much regularity as in a city. Goldsmiths, jewellers, bankers, drapers, druggists, confectioners, carpenters, tailors, tent-makers, corn-grinders and farriers found full employment; as did whole rows of silver, iron and copper-smiths; but those in the greatest and most constant requisition, seem to be cooks, confectioners and farriers."

(Cited by D.D. Kosambī from James Forbes: *Oriental Memoirs* : a narrative of seventeen years' residence in India, 2nd Edition, revised by his daughter, Countess of Montalcombert, 2 Vols., London, 1874.)

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PART III

Problems of Boundaries

14

The Concept of Boundaries in India Through Ages*

ABSTRACT

THIS paper attempts to give a brief exposition of the concept of boundaries, its practical manifestations in the real world, the classification of boundaries, their stability, the solution of boundary problems, their demarcation on land and water, their implications in respect of territorial sovereignty and allied features and characters upto the pre-Independence period in India with a view to indicate the vast and unexplored field of research area open to students of geography, political science and other scientists including history.

The functions of international and interstate boundaries relating to the restriction and regulation of entry and exit of persons and commodities, the levy of import and export duties, vigilant watch on run-away outlaws, etc., seems to have persisted from the ancient past through the middle ages to the modern times. The typology of boundaries has been discussed with concrete examples.

The stability of the boundary depended on the occurrence of neutral, friendly and hostile neighbouring states, separated by agreed or disputed boundaries. The different approaches to resolution of the boundary problems evince surprisingly enough the modern peaceful

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modes of administrative or financial control over any disputed territory, bilateral agreements, etc., besides the most common method of resort to forcible use of arms.

The ancient basis of natural or physical boundaries has unfortunately yielded place to cultural or linguistic basis in the reorganisation of Indian states.

INTRODUCTION

Many and varied visible and latent traits and dimensions of boundary concept in India are still not fully understood, particularly during the ancient and mediaeval periods of the country's history. In this context, it may be borne in mind that there is "underlying unity and continuity in Indian history given by its geography and culture, by the spirits and achievements of its civilisation" (Puntāmbekar, 1947).

This particularly holds good in the case-study of the concept of boundaries since its inception in the dim past of the ancient Indian traditions. This academic exercise on spatial analysis of boundaries attempts a preliminary and tentative exposition of their little explored character so far.

The boundary concept in India through its various phases of evolution has shaped itself into the existing pattern and development by slow degree, with visible traces of concomitant features, attributes and implications from the ancient past of the country. Some of these characteristics may sound surprisingly too modern for the contemporary times. A penetrating and deep insight into the evolutionary processes of boundaries in India will always remain elusive without taking into consideration interacting forces of their indivisible component, *namely*, territorial sovereignty, one of the inseparable, integral and interlinked constituents of the state.

No international boundary can remain fixed, stable and persistent without effective backing, constant and vigilant watch of the state concerned and firm, spontaneous and sincere respect for territorial sovereignty and its inviolability by neighbouring states.

The concept of manifold attributes of boundaries, their modifications, transformations and changes have been investigated and highlighted on the basis of material and substantial empirical experiences and theoretical constructs and evidences, embedded in ancient Vedci Literature, Epics, Purāṇas, treatises on dharma-śāstras and politics, and recently published relevant historical works and papers in a bare outline, ending upto the pre-Independence period in India.

It will do well, at the outset, to spotlight the Indian idea of spatial sovereignty, before the exposition of the boundary concept can be taken up for in-depth discussion.

Possibly, the first clear and well-defined notion about the spatial all-embracing sovereignty can be traced back to *Aiteraya Brāhmaṇa* (an ancient Indian treatise) (*Tāmaskar*, 1967-68), in the Vedic times, from which *Kautilya* seems to have drawn his guidance in the following statement in his famous *Arthaśāstra* : "the land (space) which extends north to south from the Himālayas to the sea and measures east to west a thousand *yojanas* (7,250 Kms.) is the *kshetra* (*that is* the sphere of influence of a *chakravartin* or all-embracing sovereign)" (*Kāngle*, 9.1.17-18). However, *D.C. Sircār* points out cogently that the concept of this ideal and ambitious sovereign territorial extent, encompassing the whole of India, distinctly separated by physical barriers and sea-margins had yielded place to two sovereign dominions in India, north and south of the Narmadā river (*Sircār*, 1960).

There are earlier and contemporary references to the spatial extent of sovereign State in India in the religious works Baudhyans's *Dharmasūtra* (500-200 B.C.), (*Kāne*, 1930), Vasiṣtha *Dharmasūtra* (300-100 B.C.), (*Ibid*.), and Sānkha-Likhita *Dharmasūtra* (300 B.C. to 100 A.D.), (*Ibid.*), which need a close investigation in their original texts. The conception of horse-sacrifice (aṣvamedha yagna) often translated into practice in the past history of India by ambitious aspirants to the goal of ideal territorial sovereignty in India cannot stand in isolation from the inviolability of boundary concept, as the former breathed out constant threat and menace to the latter. The number of feuds, battles, wars clandestine or open encroachments beyond recognised or agreed boundaries, tacitly or by mutual bilateral agreements, treaties, and foreign invasions and incursions is a legion to be even mentioned here. Evidently, intranational boundaries within the country had been always in a state of changes and shifts, till the promulgation of the British power in India.

The international boundary in the north along the Himālayan mountain barrier had remarkably remained stable till the beginning of the 19th century and its problems became actively alive in the recent Sino-Indian conflicts of 1962, though in the beginning of the 20th century, the British power in India and the Chinese government were drawn closer together than that in the past for recognition of the Chinese suzerainty over Tibet for the first time (*Karṇik*, 1966). Even precious little is known about sea frontiers and boundaries, though the ancient Indians had indulged freely in sea-faring activities, till the advent of European nations by sea-routes to India towards the end of the 15th century A.D. However, *Kautilya's Arthaśāstra* contains the germs of the concept of territorial waters in the statement : the Controller of shipping "should demand duty from ships sailing on sea when they come within the *domain*" (*Kāngle* : 2.28.11). It is pleasant to hit upon the reference which states, "Power was then vested in him as the lord of every seaport and custom-house between the first and third century A.D." (*Purī*, 1947). The Moghul rulers had neglected the sea frontiers, as they were landbound. Their rule was weak at the boundary regions or outskirts of their territory (*Puntāmbekar*, 1947), particularly, their hold on sea-boards was loose and shaky.

The explicit mention of boundaries rarely appears in the Vedas, Upanishads and Smritis and even in the Purāṇas, and Buddhist literature, though names of a large congeries of states in India occur in them, most probably separated from each other by belts or zones forming frontiers between them, because of the amorphous character of existing boundaries. Large areal extents of landscape remained unhumanised on account of the process of colonization in progress and the occcurrence of vast, dense and impenetrable forested tracts, interposed between colonised area (*Tāmaskar*, 1966). So long as tribes or groups of people did not lose their nomadic habits (*Smith*, 1914), the question of any crystallization of boundary concept remained a remote possibility. Extensive sprawls of interposed forests persisted even in the 16th century, particularly in the Deccan. Hence, areal frontiers separating political dominions and realms in India (*Tāmaskar*, 1978) persisted even after the appearance of the Moghuls on the political scene, though linear boundaries had already been stamped on some parts of the political landscape of the country, since the dawn of Indian history. We get the first glimpses of perceptual constructs of linear boundaries in the 4th century B.C. and their actual manifestations on the landscape for the first time probably on Alexander's retreate from India. Alexander had erected twelve altars to mark the farthest point of his advance (*Smith*, 1914). Evidently these altars could not demarcate the entire farthest eastward limit of his conquests Likewise, there is another instance of erecting pillar inscription for demarcating boundaries between two neighbouring states. The demarcation of boundaries between two feudatary rulers is recorded in Mahārājā Hātin and Mahārājā Sarwanātha, who erected a pillar at Amblodā to mark out the boundary between their territories about 510 A.D. These appear to be an incipient beginning of concept of boundary-markings on land in India, between two neighbouring states.

As the concept of boundaries is bound up with sovereignty of the State, let us turn to the examination of the prevalent notion of sovereignty in the ancient past of the country. According to the Matsya Purāṇa, the sovereignty comprised of seven organs of the State, *viz.*, "the lord (the ruler), ministers, republics or confederations of peoples (Janapadas), forts, political power (*Danda*), treasury and friends (friendly neighbours)" (*Āchārya*, 1970). While the Purāṇas lay emphasis on friendly neighbours of a state, *Kautilya* could not envisage the peaceful existence of vicinal states, implying thereby implicit ever-changing boundaries of intra-national states, *Kautilya* advocated the creation of a geo-political sphere around the sovereign state (*would-be* conqueror) and expediency of pursuit of his *six-fold* external policy. As the details of his international geo-politics have been highlighted elsewhere, they need not detain us any longer (*Tāmaskar*, 1968). Manifestly, the prevalent notion of boundaries conforms to boundaries of confrontation (*House*, 1968), though peaceful infiltration by creation of pilgrim centres and purchase of territory of the peripheral state have been not lost sight of by *Kautilya* (*Tāmaskar*, 1966).

With the recognition of and focus on the economic utility of the sea in the 17th century Deccan, the notion of territorial waters added a new dimension to territorial sovereignty into the sea (*Bālkrishṇa*, 1940), which is expressed in the accreation of new organ to the notion of sovereignty, *namely*, navy with the rise of Śivājī to political power (*Amātya*, 1941).

The new-born facet of territorial sovereignty led to the impressive spatial organisation of the littoral, manifested in the erection of ports, creation of naval forces and merchant fleets, resulting in increased commercial and economic activities.

(a) *Natural Boundaries*

We shall, now, turn to the fact that in the early stages of the evolution of boundaries. it is not surprising that there had been a marked preference for natural barriers to delimit them. The boundary bases, aligned with continuous features of natural landscape, were selected to follow stretches of mountains, courses of rivers and canals, outskirts of deserts, forests, swamps, etc. (*Kāngle*, 1972). Generally, mountain ranges and stream courses served to separate cultural groups by virtue of their comparative well-defined character.

As so-called natural boundaries could not and cannot be assured of their protection by themselves, *Kautilya* as a consequence, had urged strongly the erection of defensive fortifications on all four quarters of boundaries (*Kāngle*, 2.3.1).[6]

(b) *Boundary-Markers*

In the ultimate analysis, all boundaries are man-made geographical occurrences (*Kristov*, 1959). As such, they ought to appear distinctly on the landscape by such devices as marks, cutlines, fences, notices, etc. (*Prescott*, 1965). *Kautilya* enjoined the headman of a village to cause "a fence to be made with pillars all round the village at distance of one hundred *dhanus*". The practice of concealed boundary marks is quite interesting whereby pots filled with chaff, coal, bricks, bones and similar other, not easily corrodible things, are buried inside the earth. "A row of large-sized stones should be employed to indicate the boundary." In the 4th century B.C., perhaps, even earlier, artificial boundary marks had come into vogue with checkposts and custom barriers under the supervision of boundary gate-keepers (*Manusmriti*, VIII, 250-1).

The practice of demarcation of boundaries of spatial units in India, obviously, must have persisted throughout subsequent ages. The land-boundary between the erstwhile Sāwantwādī princely state and the Portuguese territory of Goa has been delimited on ground by a narrow clearing in the adjacent forests (*Smriti-Chandrikā*, II, 25) (*Tāmaskar*, published in this volume). We have come across various land-measures in time and space throughout the country, particularly, in specific reference to revenue surveys. The present author has incorporated the regional land-measures in one of his papers, existing in one of the Deccan states of the first quarter of the 17th century (*Tāmaskar*, 1978). Land-measures occur in *Kautilya's Arthśāstra* also (*Ibid.*, 1978).

It is interesting to note that land-measures were used for surveying land and, perhaps, cadastral maps were prepared therewith (*Kāngle*, 2.20.2-25). In this connection, the attention of the reader may be drawn specifically to the professional jaribdārs, engaged in the measurement of land on payment of specified rates or fee. Far more astounding may sound the existence of Indian cartographers. The following reference to the 17th century cartography has been culled out as the convincing evidence in its support: "The map of Śivājī's kingdom, prepared by Parvat Rāo was shown to Emperor, Aurangzeb." This map is referred to in the Persian manuscripts, kept in the Royal Asiatic Society, London. The Marāthī translation of this interesting reference occurs in Fārasi Riyāsat of Sardesāī.

One is inclined to believe that some of the contemporary general and cadastral maps and even sea-charts of the past may be lying buried in foreign manuscript libraries and museums but also in similar learned institutions and societies in India. Some of these have been unearthed recently. The search for indigeneous cartography awaits the selfless and painstaking labour of some patient and tenacious scholar or scholars, with the financial aid of such institutions as are able to render it, before they are lost to us for all time to come.

One patent fact emerges from the extract cited above that the cartographer belonged to the Deccan and it is likely that he and others of his profession might have prepared other maps. These maps may prove highly useful for the in-depth analyses of the contemporary boundary concept and its application in the real world.

Notices of village boundaries and references to boundary disputes occur from ancient times. At least from the 4th century B.C. onwards, meticulous care has been bestowed to spell out the allocation and delimitation of village boundaries, followed by their actual administration (*Kāngle*, 2.1.3).

A categorical mention of boundary-markers has been made in the period, preceding the 1st century A.D. In addition to the man-made boundary-markers of villages, trees, large stones or rocks, etc., permanent natural features were also utilised for delimitation and demarcation of boundaries on the landscape. It is illuminating to note that village boundaries were demarcated on the land in the presence of witnesses thereto (*Manusmitri*, VIII-249-251). This healthy and useful practice of the demarcation, handed down to us, must be reckoned among one of the valuable and venerable legacies of our ancient forefathers.

In village and land-grants, occurring in recorded inscriptions also, the allocation and delimitation of boundaries have been explicitly mentioned, in order to avoid possible future disputes (*Dīxit*, 1947 and *Srīnivāsan*, 1953).

(c) *Classification of Boundaries*

We have already made a reference to implicit and explicit notices of natural boundaries. We may, now, turn to the administrative units, which had their own boundaries. It may be noted that large spatial units in ancient India were known by several appellations such as *Rāṣtra*, *Janapada*, and *Desha*. Their divisions were known by such names as *Viṣaya*, *Maṇḍal Bhuktī*, *Prānts*, etc., with their varied sizes and shapes. These were sometimes used interchangeably. We come across with an unfamiliar term, *Khanpaṇak* in the 13th century in the Deccan (*Dīxit*, 1947) in connection with the *Khapaṇak* of Nidhīvās (Modern Nevāse). Another similar rare administrative unit referred to in ancient India, is *Pauras*, which in the modern terminology may be identified with the township (*Choudhary*, 1947).

In the Moghul times, the administrative units, *namely*, *Subhā*, *Sarkār* (District), and *Parganā* (also styled as Mahāl) appear in the descending order of administrative hierarchy.

In the Deccan of the sixteenth century, a varied number of administrative terms was in vogue which included *Tape*, *Māmle*, *Parganā*, *Tarf*, *Mahāl*, *Karyāt*, etc. Śivājī introduced in his dominion only three categories, viz., *Prānts*, *Taraf* and *Maujā* (village) in the second half of the 17th century. The old administrative divisions did not easily become obsolescent for a long time causing undue confusion in identifying territories. In the far south, the Tāmil-speaking area, prior to the 9th century, seems to have been dotted over administrative units known as *Nādū*. Nothing has been said about the size, compositions and functional jurisdiction of this spatial unit (*Vaidyanāthan*, 1953).

The following table of the administrative units in Karnātak and

Tāmil Nādū gives their corresponding names during the regime of the Vijayanagar kingdom for a comparative study (*Patake*, 1936-7) :

Karnātak	*Tāmil Nādū*
1. Sthal (Village)	1. Nādū or Simai.
2. Sīmā or Nādū	2. Paru or Manlandu.
3. Valita or Binte	3. Kottam.
4. Rājya or Cāvadī	4. Maṇḍalam or Rājyam.

The names of administrative divisions of pre-and post-Independence period in India are quite familiar to bear any repetition.

In a nutshell, the evolution and significance of administrative units varied in space and time in India, which in themselves constitute an independent theme for intensive and fruitful research project.

In the end, we may refer to minuscule boundaries, setting apart fort-premises (*Māchīs* in Marāthā History), royal palaces, custom-houses, military establishments, etc., from general encroachments.

(d) *Boundary Functions*

The early concept of boundary was one of barrier character. Deep afforestation, elephant forests and wild tracts along boundaries are suggestive of expediency of separating factors to fix them permanently and to impede integration across the border line (*Kāngle*, 2.31.1).

It may be recognised that *boundaries were and are joural laws*. They were and are spatial expression of the given legal system. As such, we find that the flow and circulation of goods and persons, of indigeneous and foreign origin, was regulated by strict rules. The provision of passports was scrupulously enforced, particularly, in case of foreign visitors. The unfettered flow of commodities was forbidden by law and a higher rate of toll than that on indigeneous goods was levied on imported goods as a protection against unhealthy competition to establish commercial relations and home-made goods were exported to foreign countries. Thus, measures were adopted for imposing effective checks on smuggling (*Ibid*., 2.21.22-23 & 2.12.29-30) during the 4th century B.C.

At a later stage in the Indian history, it appears that persons were not only required to obtain passports for crossing established boundary but also to pay fee. We may cite the recorded instance of the Dutch traveller, Van Ravestyn, who was allowed to cross the farthest limit of the Nizāmśāhī boundary on payment of a formal tax in June, 1613 (*Wādekar*, 1930). Another instance of the similar category is recorded towards the end of the 18th and the beginning of the 19th century in which there is also a definite and categorical mention of payment of fee on reaching a certain place (*Āpte*, 1939). The regulation of entry and exit of individuals and goods seems to have been in force both in normal and war periods. Outlaws or runaways from the law were forbidden to remain in the territory of any state, after crossing its boundary at the point of entry. There is an explicit reference to the search efforts made by the Nizāmśāhī Premier in 1621 A.D. of a debtor. who had been trying to escape from his obligations (*Factory Records, Miscellaneous*, 1621). Early in the 19th century or even earlier, the question of extradition of insurgents and criminals seems to have been raised (*Kumār*, 1941).

The above discussion points to the irresistible conclusion that the evolution of boundary functions witnessed several stages to attain their present pattern and functioning.

(e) *Boundary Disputes*

The existence of boundaries implies that disputes could arise at any time and place, but their nature could differ from place to place and area to area. International boundary disputes can be classified into territorial, positional and functional. For the sake of economy of space, we may only cull out one example of each category. In the first category, we may cite the boundary dispute in Afghanistān's frontiers in which four parties were involved in 1872-73, *namely*, Persia, Russia, Britain and Afghanistān. The British administration in Indiā directed its efforts for the precise definition of Afghanistān boundaries and earnestly helped to acquire natural and scientific boundaries with her neighbours in west, north and north-west (*Malhotrā*, 1972).

The above dispute arose from the previous superimposition of boundaries upon the physical landscape. We may, now, give an instance of partial evolution of boundaries, resulting in positional disputes. It is highly interesting to note the preposterous and extravagant claims advanced by Feringī pirates of Chitgāon (in Ārākān) in 1965 A.D. upon the Moghul territory which ultimately ended in the conquest and capture of Chitagāon in the following year (*Sarkār*, 1919), shifting the eastern boundary of the empire athwart the Bay of Bengāl. In the last category of disputes, we may cite the example of the International boundary on the Terekhol River between the former Portuguese territory of Goā and the erstwhile Sāwanawādī princely state, which had been a perpetual source of disputes, due to large-scale smuggling resorted to by the peoples on either bank of the river, because of the improper functioning of the boundary (*Tāmaskar*, published in this volume).[7]

The impressively large number of rural settlements in India has witnessed frequent and numerous village boundary disputes, since the ancient times. We come across the earliest examples of these disputes in the 4th century B.C. (*Kāngle*, 3.9.11-25). They are also repeated in the period, preceding the Ist century A.D. (*Manusmriti*, VII-245).

Thereafter, village boundary disputes are not traceable till the beginning of the 10th century A.D. from the historical sources available to the author, except the reference embodied in the *Yāgnavalkya Smriti* (*Kāṇe*, 1950). Such recurrent village disputes are noticeable in the first half of the 17th century in the Nizāmśāhī kingdom of the Deccan (*Tāmaskar*, 1978 : Chaptre on Judicial System) and also in Śivājī's times, later on.

(f) *Resolution of Boundary Disputes*

For the sake of convenience and clarity, we may divide this topic into two broad categories : (1) International Disputes and (2) Village-boundary disputes.

The common, crude and ready method of solution for international or intra-national boundary disputes is the resort to the use of arms since times immemorial. But peaceful methods have also been utilised for the solution of certain boundary problems with extraordinary degree of success at times. Examples of peaceful solutions of boundary problems are cited below from my studies of the Nizāmśāhī kingdom between 1600-1626 A.D. :

1. The bilateral negotiations and stipulated retrocession of disputed territories or places : retrocession of the fort of Kandadhār (in the Deccan) (*Khare*, 1939), (2) the establishment of *Condominium* into the border of Shirwal *Parganā* (*Purandare*, 1926, Art. 15), (3) sharing of land-revenue in the proximity of Chaul between the Nizāmśāh and the Portuguese (*Āvalaskar*, 1944, Art. 18).

   The modes of settlement of village-boundary disputes may be summarised below :

1. 4th Century B.C. : "In all disputes regarding the boundary between any two villages, neighbours or elders of five or ten villages shall investigate the case to be furnished from natural or artificial boundary marks (*Kāngle*, 3.9.11).
2. 1st Century A.D.: An elaborate and systematic procedure seems to have been adopted and may be mentioned as follows : (a) examination of traces of the former boundary marks, when and if necessary, (b) respondents and defendents to produce witnesses, (c) the deed of the settlement with particulars of the boundary fixation, duly signed by witnesses thereof and (d) the decision to be made in the presence of the ruler (*Manusmriti*, VIII-253-60).
3. 17th Century A.D. : (a) boundary dispute between the village of Chātan, *Tape* Karkamb and the village of Bhosar, *Tape* Udargāon (23-11-1608), decided by *Gotsabhā* by the use of an ordeal (*Māwjee* ahd *Parāsnīs*, 1913, Article 6.); (b) boundary

dispute between Kedgāon and Pārgāu of *Prānta* Puṇe, decided by *Rājasabhā*, first decided by ordeal of fire, followed by taking ball out of boiling fat and finally marking it on the ground (*Śiva-Charitra-Sāhitya*, Part-II, Article 93, dated 1610 A.D.); (c) boundary dispute between the township of Supe and village of Vadhaṇe, decided by *Gotsabhā* (3.12.1619) on the basis of previous papers and ordeal, followed by final demarcation of the boundary by members of the *Sabhā* by traversing the boundary (*Rājwāde*, 1915, XVIII, Article 4); (d) boundary dispute among Mālsiras (*Parganā* Supe) and Takāwādī and Pisrāva (*Tarf* Karhepathār) (27-9-1621), decided by *Rājsabhā* on the basis of an ordeal by taking out ball from boiling fats (*Mawjee and Parasnis*, 1913-II, Article 39). The dispute started in the Nizāmśāhī regime and was finally closed in the times of Bājī Rāo Thorale (*Tāmaskar*, 1978 : Chapter on Judicial System).

The transportation of soil by a river, separating two villages, had given rise to an interesting solution of the boundary problem. The accretion of transported soil belonged to the village to which it became attached, but this was only when the soil carried away had no crops growing in it, but if the soil with growing crops was separated from a village and joined to another by river in flood, the former owner could reap only the crops and land would belong to the village or field to which it had become attached (*Smritis of Brahaspati*, Verse 14, p. 352).[8]

(g) *New Trends*

The new trends express themselves in (1) the orientation and extension of political and economic activities towards littoral regions, and (2) the preception and realisation of cultural diversity.

The appearance of the European traders on the Indian sea-coasts markedly invited the attention of some Indian rulers, particularly of Śivājī, to the gains and advantages of marine resources, maritime trade and commerce and resultant economic activities and prosperity. As a result, navy came to be reckoned as the separate and independent organ of Marāthā Kingdom with the powerful realisation of the fact that the mastery of the sea could be in hands of any political power which possessed the strongest navy (*Bālkrishṇa*, 1940), though its humble beginning had been already anticipated and made in the preceding Nizāmśāhī kingdom (1600-1626 A.D.). The remarkable upshot of the institution of navy was the equal and successful competition of the Marāthā rulers in naval and maritime activities in the Arabian Sea against their determined and avowed European rivals, particularly, the

Portuguese strongly entrenched on the western coast of India, claiming to issue navigation permits, known as *cartaz* to all Indian navigators. "Right from the beginning of their coming to India, the Portuguese regarded themselves lords of the seas" (Śāstry, 1973). The mastery of the seas was challenged by the Marāthā rulers with the result that the concept of pushing coastal boundary seawards into territorial waters could be sensed and began to crystallise into existing pattern unconsciously and consciously to lay claim on all wrecks in their ports (*Bālkrishṇa*, 1940). The increased shipbuilding and commercial activities, fishing, salt-making and collection of custom duties improved the State finance to a considerable degree on this account. We have not come across any empirical evidences recorded in historical materials so far as to the theoretical constructs, nature, scope and function of territorial waters.

Another notable but unfortunate trend, *that is*, dormant, latent and lurking undercurrent of cultural diversity in the past gave vent to its ugly and unhealthy pattern and burst out into open activity, even before the firm imposition of the British rule, which had been fanned into fire by it to prolong its political strangle-hold on the country. The work, entitled *Satpancasidde's Vıbhāga*, assigned to a period not earlier than the first quarter of the 18th century, incorporating a list of fifty-six *deshas* in India, gives a vivid depiction of cultural diversity of India (*Sircār*, 1940). "The earliest work containing a list of fifty-six *deshas* seems to the *Candragarbha-sūtra* or *Candragavaipulya* (translated into Chinese by *Narendrayadās* in 566 A.D.), mentioning them in connection with Buddha's manifestations in Jambudvīpa" (*Ibid.*).

It may be pointed out that India took an unfortunate decision to adopt ethnic basis for state reorganisation into the present linguistic spatial units, with resultant pockets of minority groups to resort to peaceful and vociferous agitations for minor adjustment of intra-national boundaries, administrative hindrances, obstructions and inconveniences on borders with little consideration of economic and industrial economy of the country. In sum, the ancient physical base of boundary delimitation and demarcation has yielded place to the recent cultural basis.

In the end, it may be concluded that the observations made above verify substantially the hypothesis posed by us in the beginning, *namely*, the slow and imperceptible evolution of boundary concept in India, with some of its astoundingly modern traits, subsisted in the ancient past. It has not been possible to do full justice to the chosen captivating and interesting theme under study in this sketch in bare outlines.

NOTES

1. Dr. H.N. Sinhā's work entitled *Sovereignty in Ancient India* calls for a probe from geographic perspective to note whether there is any notion about spatial coordinates and components of sovereignty.
2. V.A. Smith refers to the Yuch-Chi, losing their nomadic habits and "became a settled nation" about the year 10 B.C.
3. Kānchanmoy Majumdār makes pointed reference to the barrier character of Nepāl's boundary.
4. Kautilya's ideas of elements of sovereignty in English Translation of the original *Arthaśāstra* in Sanskrit by R.P. Kānglc (1972) (6.1.1) *Cf. Manusmriti* with Shri Kulluka Bhat's Sanskrit commentary. (Bombay, 1959) Ch. IX, Verse 294.
5. *Manusmriti* VIII, Verses 245-66 (Composed between 2nd century B.C. and 2nd century A.D.); S.M. Ali : The Geography of the Purāṇas (New-Delhi, 1965) mentions *Maryād Parvat* (limiting mountain), p. 110 and rivers "formed the boundaries of Janapadas", p. 170.
6. It is interesting to note that in the *Matsya Purāṇa* there is a distinct reference to water forts among different categories of forts in Ch. 95, Verse, 7. *Cf. Manusmriti*, Ch. VII, Verse 70, has another reference to water fort and, perhaps sea-fighting in Verse 192 of the same chapter.
7. There is similarly recorded example of dispute in ancient India along a river in northern India, arising out of utilising a major share of its waters for irrigational purposes by its inhabitants on one bank, depriving their counterparts on the other bank, along the river Rohiṇī, which formed the boundary between the Śākya and Koliyā cultivators who lived on opposite sides of the river with regards to the right of its water for use in irrigation. (Jātaka, Ed. by Cowell, V, p. 219; *B.C. Lāw* : Ksatriya Tribes of Ancient India, pp. 208-10).
8. P.V. Kāṇe : History of Dharmasāśtra, III, Ch. XXII, pp. 502-510 incorporates elaborate procedural details for the settlement of village-boundary disputes.

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3. *Archārya Shrīrām Sharmā*, 1970 : *Matya-Purāṇa* with Hindī Translation (Sanskriti Samsthān, Bareilly).
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15

The Former International Boundary in the Terekhol River

(Histro-Geographic Analysis of the Former Indo-Portuguese Boundary)

ABSTRACT

THE in-depth study of the former international boundary in the Terekhol River, existing since 1803 A.D. till the occupation of the Portuguese territory in Goā in 1962, embodies the empirical evidence of its unsatisfactory functioning, due to a variety of spatio-economic variables. The paper covers the evolution of the boundary studies, the physical characteristics of the river and adjoining land-scape, the impact of natural features on the boundary demarcation and functioning, the border landscape, the unfortified boundary and borders, the economic dependence of the Portuguese territory in India, the post-merger transformations, the functioning of the boundary, culminating in concluding observations.

INTRODUCTION

The main objective of the paper is to analyse the spatial and political reactions of the former Indo-Portuguese boundary and border cultural landscape in the relative historical perspective and their causes and consequences.

METHODOLOGY

The paper is based on field work and inquiries, mapping data from relevant contemporary historical documents, and empirical evidences, shedding light on the spatial attributes and consequences stemming therefrom on the unsatisfactory and irritating functioning of the boundary on account of its partial marking on the physical landscape. A part of the northern boundary of the former Portuguese territory of Goā ran in the mid-current of the Terekhol R. The common boundary of the erstwhile Portuguese territory and Mahārāṣtra State commenced close to the village of Sātelī, south of the town of Bandā, located close to the Terekhol R. The village of Terekhol, north of the river of the same name, formed the northernmost out-post of the former Portuguese territory. The Terekhol R. remained a stable international boundary between the Portuguese colony and British Empire in India and, subsequently, India, the successor of the latter for more than 59 years till the acquisition of the foreign pocket of Goā by the Indian government in 1962 A.D.

The Evolution of the Boundary

The Terekhol R. acquired the status of international boundary in 1803 A.D., after the Portuguese had secured their first foothold on the Indian territory in 1510 A.D. (*Ratnāgirī District Gazetteer*, 1962). The Portuguese, after long-drawn efforts and fluctuation of their fortunes in the acquisition of Indian territory, had succeeded in pushing their frontier as far south as the Terekhol River and further north, in the village of Terekhol (Fig. 15.1). They had to encounter bitter opposition and stout resistance both in keeping up their existence on the Indian territory and in bolstering up their territorial expansion from their land-base against several political potentates such as the Ādilśāh, Śivājī, Sambhājī and local chieftains in the close proximity of Goā, known as Nāīks and Desāīs.

The political frontiers and ever-changing alliances among the local chieftains offered suitable opportunities to the Portuguese to fish in the troubled waters, with varying success resulting, ultimately, in pushing their areal extent of territorial possessions to the maximum possible, till its final halt in 1803 A.D., which marks the conspicuous milestone in the political fortunes of the Portuguese.

The Portuguese expansion of their territorial acquisition falls into *two* broad evolutionary stages (Fig. 15.1). The distinguishing foreign traits of culture development and evolution, south of the Terekhol R., have left their impress on the landscape. The landscape astride the Terekhol R. has visible elements of two differing cultures.

Even within territories of Hindu rulers by treaty agreement, the Portuguese could procure to Christian Missionary and Clergymen freedom and liberty for the study of Christian faith, resident within their neighbouring territorial principalities and also suffer their English co-bretheren to get allotment of lands (*Khare*, 1965, Document Nos. 35 & 40).

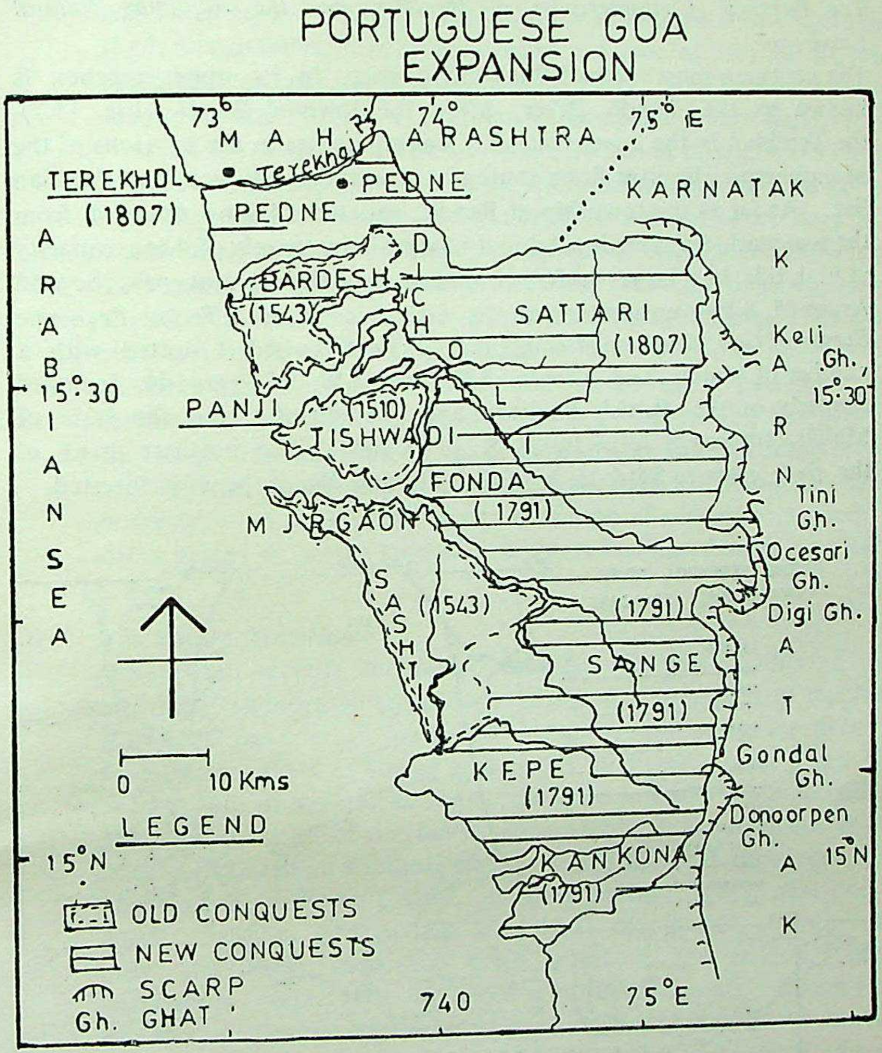
PORTUGUESE GOA EXPANSION
73°
74°
75° E
MAHARASHTRA
Terekhol
TEREKHOL (1807)
PEDNE
PEDNE
KARNATAK
DICHOLI
BARDESH (1543)
SATTARI (1807)
ARABIAN SEA
15°30
PANJI
(1510)
TISHWADI
FONDA (1791)
MURGAON
SASHTI (1543)
(1791)
SANGE (1791)
KEPE (1791)
KANKONA (1791)
0 10 Kms
LEGEND
15°N
OLD CONQUESTS
NEW CONQUESTS
SCARP
Gh. GHAT
740
75°E
Keli Gh.
Tini Gh.
Ocesari Gh.
Digi Gh.
Gondal Gh.
Donoorpen Gh.
KARNATAK
15°N

FIG. 15.1 : *Goa — Expansion*

In 1807 A.D., seizing the opportunities of conflicts between local chieftains, the Portuegues seem to have directed their last thrusts northwards from the advanced outpost at Terekhol, supported by their territorial base to the south of the Terekhol R, with little success : (*Gazetteer*, 1962), which extinguished their territorial ambition on the Indian soil on coming into contact with the friendly European Power, *namely*, the British in India.

The Physical Characteristics of the River and the Adjoining Natural Landscape

The southern-most river of Ratnāgirī district, in its upper reaches, is known as the Bandā River, after the town of Bandā (Fig. 15.2), the Terekhol in the lower reaches. Taking its rise in the environs of the Manohargad, the river flows southwest to empty itself into the Arabian Sea. As far as the township of Bandā, situated 24 kms upsteam from the sea-coast, the river is tidal and navigable by vessels of 4-ton capacity at high tide but large crafts of 20-ton capacity cannot pass beyond Araondā, 5 kms upstream from its estuarine mouth (*Techno-Economic Survey of Goā, Daman and Diū*, 1964). The river-bed is dotted with a number of islands and shoals, S.E. and S.W. of Araondā, included formerly in the British territory and subsequently into the state of Mahārāṣtra except Julkā Juwā, S. of Kinālā. The northern bank of the river, close to Sātardā, both to its E. and W., is heavily forested.

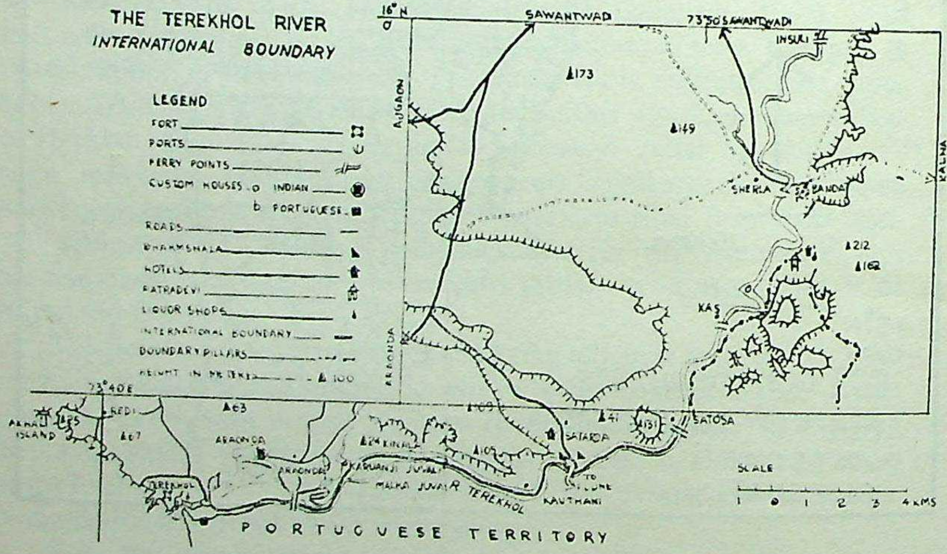
THE TEREKHOL RIVER
INTERNATIONAL BOUNDARY
LEGEND
FORT
PORTS
FERRY POINTS
CUSTOM HOUSES a INDIAN
b PORTUGUESE
ROADS
DHARMSHALA
HOTELS
PATRADEVI
LIQUOR SHOPS
INTERNATIONAL BOUNDARY
BOUNDARY PILLARS
HEIGHT IN METRES ▲100
16° N
SAWANTWADI
73°50' SAWANTWADI
INSULI
▲173
▲149
AJGAON
KALNA
SHERLA
BANDA
▲212
▲162
KAS
ARAONDA
73°40' E
AKHAD ISLAND
REDI
▲63
▲67
ARAONDA
ARAONDA
TEREKHOL
▲24 KINALA
KARUANJI JUVALI
MALKA JUVA
R TEREKHOL
▲109
▲41
▲131
SATARDA
SATOSA
TO
KAUTHANI
SCALE
1 0 1 2 3 4 KMS
PORTUGUESE TERRITORY

FIG. 15.2 : *The Terekhol River : International Boundary*

The Impact of Natural Features or Boundary Demarcation and Functioning

The (Fig. 15.2) reveals that apparently former the international boundary between the Portuguese territory of Goa and India conveniently mid-steam in the stretches downstream as far as Sātelī, free from islands and shoals. In the lower reaches of the river, west of the town of Sātardā, the river boundary lies south of all islands and shoals, except south of Kinkā, where it runs between islands, *namely*, Karuānji, Juvālī and Julkā Juvā. Though the physical maintenance of the boundary was the least expensive, it had been always a source of constant troubles and annoyance to both the administrative entities, lying astride the river, on account of the absence of markers of boundary within the course of the river, which enabled intruders to claim benefit of doubt, when challenged by patrolling authorities on the question of crossing the fixed boundary.

The flattish nature of the northern segment of territory of Goā, immediately to the south of the Terekhol R., spelled menace to the Portuguese authorities. Indian fugitives from law or smugglers could slip in with authorised and permitted holiday-makers. The north of the Terekhol River, the thick vegetation extending from the proximity of the bank and clothing all hills, and further north, particularly east of the town of Sātardā, could easily shelter all undesirable renegades, who played the hide and seek to evade the watch of any patrolling party.

In the absence of close, strict and vigilant watch by patrolling authorities on the border, illicit infiltration of persons and goods could occur across it, as the landscape features facilitated such activities.

The Border Landscape

It has been already mentioned that the elements of differing cultures are visibly stamped on the border landscape to the north of the Terekhol R., typical features of the Indian rural life with irregular patterns of fields, shanty types of houses and hotels, sheltered amidst green verdure of trees and ill-maintained roads still stand in sharp contrast against the geometric patterns of rice fields, chequer-board arrangement of roads, lined with Christian Crosses, planned townships with their equally well-built houses in Western style, planned market areas, neat and clean hotels, churches and chapels (Fig. 15.2) near Bandā, and in Terekhol busy and heavy road and river traffic in the territory of Goā, particularly co-extensive with the area of old conquests. Moreover, the forcible conversion of the non-Christian population in the Portuguese territory of Goā into the Christian fold resulted in waves of out-migration into the bordering villages, *namely*, Kauthanī, Mānjre, Pedne, Sātardā, Aros, Kās, Bandā, Mānerī, etc , north of the Terekhol R., more than a century ago, and some migrants also retreated into deep recesses of forested tracts. Most of the migrants took to farming of the newly occupied virgin and unclaimed lands and a few of them settled down as landless labourers on farm lands. Some migrants could find ready employment in boat-making, supported by the local supply of wood and rope-making from the coconut coir.

The migrants had some visible cultural impact on the settled population of the border zone, north of the Terekhol R. The art of distillation of liquor has been learnt by the border people from some migrants from the territory of Goā. Steeped in the European culture, the migrants, particularly women, brought some traits of 'Goan' culture in to the border zone with them. Most of the migrant women-folk speak the Goan-Kokanī dialect, whereas some migrant males speak the Mālavaṇī-Kokaṇī dialect and others speak the Goan-Kokaṇī. 'Dhālo' dance and folk songs are some sources of popular recreation on the border zone. Folk songs of the Goan origin have found an easy outlet into the border zone, north of the Terekhol R. with the waves of migration from the former Portuguese territory. The widespread smoking and wine-drinking habits among the inhabitants in the border zone are attributable to their long contact with the fugitives across the river from the Portuguese territory.

The Unfortified Boundary and Borders

It is of absorbing interest to note that the boundary along the river remained unfortified and unguarded, except for the new Portuguese fort erected at Terekhol. The unguarded and unfortified river boundary is not merely an historical accident, but an outgrowth of the consistent policy pursued by the Portuguese in the past, as evidenced by a series of successive treaties as follows :

1. The peace treaty contracted on Feb. 17, 1740 A.D. with Jayrām Sāvant Bhonsele and Rāmchandra Sāvant Bhonsele Sardesāī of the Province of Kudāl by which the Portuguese forbade the erection of forts and fortifications (*Khare*, 1965, Document No. 28);
2. in a subsequent treaty agreement for the demolition of the fort at Khorjuvā was imposed on Rājeshrī Sardesāī (*Ibid.*, Document No. 29);
3. the erection of fortification on the river banks had been prohibited except the old one (*Ibid.*. Document Nos. 30-33);
4. no patrolling stations or fortification would be maintained or erected along the banks of the river (*Ibid.*, Dounmant No. 35);
5. Khem Sāvant Bhonsele Sardesāī entered into an agreement with the Portuguese not to permit or coutenance the maintenance of patrolling stations or fortifications along the river boundary on June, 13, 1975 (*Ibid.*, Document No. 48);
6. the erection of fortification and maintenance of patrolling stations along the river banks was forbidden without the permission of the Portuguese (*Ibid.*, Document Nos. 41, 50 & 81).

Though the unfettered freedom of navigation to naval and mercantile vessels in the river was agreed upon in principle among the Portuguese and adjoining Nāiks and Desāīs, its control seems to have tilted in favour of the Portuguese on account of their naval supremacy and the latter expressed an ineffective claim of sovereignty on the sea. The naval vessels of the Portuguese and the Sāvants were to avoid mutual clashes and offer refuge and help to each other at any time. A stipulation also in respect of the movement of commodities from the state of Sardesāī of Kudāl in river vessels through the bay, controlled by the Portuguese to and from ports, had been incorporated in the treaty of agreement made on Feb. 17, 1740 (*Ibid.*, Document No. 48).

The Portuguese mercantile vessels were assured security and protection in the river on payment of the stipulated custom-duty. (*Ibid.*, Document No. 26).

Similar terms of agreement were reiterated subsequently whereby the Portuguese mercantile vessels were offered protection from molestation from landward side on the regular payment of custom-duty, previously agreed upon (*Ibid* , Document No. 30) and the vessels of Sardesāī were enjoined to fly his flags on his vessels and to present the navigation permit on demand (*Cartaz*) (*Ibid.*). There is an explicit reference to the sovereignty on the sea, claimed and enforced by the Portuguese whereby Khem Sāvant Bhonsele Sardesāī was constrained to observe the stringent terms imposed on him (*Ibid.*, Document No. 48).

The regulation for the movement of persons and goods was mutually agreed upon by the local rulers and Portuguese authorities in Goā. If the subjects of Indian rulers went across the river and indulged in plunder and theft, the culprits were liable to be hauled up before the court of law and, further, if they resorted to inflicting injuries, they were awarded punishment, according to the gravity of their crimes (*Ibid.*, Document No. 6) and compensation or return of goods was also enforced, deportation of persons fleeing from the Portuguese territory was incorporated by a treaty. Measures against molestation of the subjects, particularly peasants, was also stipulated in the same treaty (*Ibid.*, Document No. 30).

With the expansion of the British power in India, the state of Sāwantwādī came under its effective paramountacy in 1819 A.D. (*Ratnāgirī District Gazeteer*, 1962). The Terekhol River became a common boundary, along the southern frontiers of princely state of Sāwantwādī and northern frontiers of the Portuguese territory of Goā. The British in India maintained most cordial, amicable and friendly relations with the Portuguese in India, though occasionally they were strained, as outlaws from India found shelter across the Portuguese territory. The trade between the British and Portuguese territories was relatively free, and population movements were unfettered. The actual operation of boundary functions was at the minimal, except for the collection of custom-duty at custom-houses, existing along normally well-established highways for traffice in goods. These conditions persisted till the transfer of power by the British power to the Indian Government in 1947. As is well known, the state of Sāwantwādī was merged into the state of Bombay and, subsequently, became a part of the successor state of Mahārāṣtra by its incorporation into the district of Ratnāgirī (now, Sindhudurg).

The Economic Dependence of Goa on India

Now, we may focus our attention on the operation of river boundary with the acquisition of the Indian Independence in 1947.

In the Fig. 15.2, two custom-houses of the Portuguese authorities, one close to the estuary of the river and the other near Bandā have been depicted, in addition to the Indian custom barrier at Araondā on the river, at former recognised points of entry and exit of traffic in goods. Apart from the custom-house at Araondā, other establishments in respect to boundary features are the office of Kiraṇpāṇi port and police station. The seven ferry points on the river, marked on the Fig. 15.2 besides Vilavāde Otawāṇe, north of Insulī, lying outside the map, constituted unauthorised points for the circulation of goods, across which bulk of smuggling occurred from both the political entities. The visibly distinguishing feature of the Goā territory is the occurrence of wine-shops or bars, some of which are indicated on Fig. 15.2. The existence of these wine shops across the boundary had rendered the dry law of the Mahārāṣtra Government on the border zone in-effectual, as unfettered ingress and egress to all persons to and from the territory of Goā were permitted and practised, except at checkpost in custom barriers on the road leading from Shirvādā to the village of Terekhol, marked by the existence of a cross to signify its former Portuguese occupation. The western Christian architectural design of the fort at Terekhol testifies to its construction on the Portuguese occupation of the village. The existence of *Dharamshālās* (inns) at Sātardā indicates that the route from the town to Pedṇe was one of the most frequented routes to the erstwhile Portuguese territory. With unrestricted movement of population across the river in the post-merger period the *Dharamshālās* have lost their former utility and have been sold out to new owners for family habitation. The former Portuguese custom-house near Bandā has been deserted and remains in a state of neglect.

The Portuguese territory in Goā never became economically viable and self-sufficient and always continued to be an out-migration area. It was feared that unemployment would assume unusual proportions after the clamping of the embargo on the Goanese goods by the Indian Government, but, on the contrary, the ban on the Indian labour had a saluatory effect in vanishing practically unemployment, though wages rose to record levels and the spurt in mining kept up the labour market buoyant. The Portuguese territory of Goa remained an economic appendange of India, which is strongly endorsed by the fact that the Indian currency circulated freely in Goā and constituted almost 2/3 of the total of all currencies in circulation (*Techno-Economic Survey of Goa, Daman, Diū*, 1964). Besides, intentionally or unitentionally, the development of agriculture and industry in Goā was neglected to the detriment and chagrin of the local people. The short supply of food for the small population constrained the Portuguese authorities in Goā to import food-stuffs from India, *namely*, rice, wheat, fruits, vegetables, meat and even other commodities such as coke, cotton textiles, soap, tobacco, tea, etc. The export market of the products of the Portuguese territory, comprising mostly of fresh fishes, betel-nuts, salt, coconuts, etc., was entirely in the adjoining Indian territory. The only flourshing economic activity of some importance was mining of managanese of low grade and some iron-ore. The people in the Portuguese Territory of Goā imported wine, sardines and olive oil from Portugal (*Ibid.*). The people in the Portuguese territory of Goā had been ever eager to oust the outmoded colonial system. The clamour for independence of the people within the Portuguese colony became vociferous and virulent on the transfer of power to the Indian people by the British. The Indians not only sympathised with the miserable plight of their counterparts in Goā, but also brought pressure on the Portuguese rule in Goā. When an embargo was declared by the Indian Government on the Portuguese territory in Goā, their Government turned to other countries for the supply of food-grains, rice and wheat, including Pākistān.

The Post-Merger Transformations

Apart from this, the major impact of the new administrative measures of the Indian Government had resulted in the tightening of import control, raising prices of all imported consumer goods, effectually checked the free flow of articles of the Goan origin into India, raising prices of coconuts and arecanuts and severe restictions on imports eliminated virtually sumggling of contraband goods, affecting the business income adversely. Till the liberation of the Portuguese territory, the Indian Government had been obliged to maintain a large number of nearly 100 persons in the Excise Department at Sāwantwādī and in its proximity to check the sumggling of foreign liquors in India.

The Functioning of the Boundary

It cannot escape our attention that the Portuguese not only connived but openly encouraged smuggling. Expensive luxury goods and consumer articles, far in excess of the local needs, were imported from abroad and systematically smuggled across the border into India. The durable consumable goods came handy into the neighbouring areas, which included watches, fountain pens, wines, cigarette-lighters, surgical instruments of the fine quality nylon and gold. Even luxury cars were smuggled, circumventing the rules in force against contraband commodities. Three years prior to the merger of the Portuguese pocket with India, the smuggling was actively rampant. Not only foreign imported goods but also the products of the Goanese origin such as coconuts and betel-nuts also entered into the list of smuggled goods. The rainy season slashed down the smuggling activities which reached their peak towards the Diwālī festival, when the luxuriant herbaceous growth on both sides of the Terekhol R. could give ready and easy shelter to infiltraters. Smugglers remained active during summers also. The smuggling of betel-nuts recorded its maximum in the month of May. The value of detected contraband goods was to the tune of 25 lakhs of rupees in 1954, which is estimated to be only to 10 p.c. of the total smuggled goods. It needs hardly to be told that such illegel activities of the Indians caused a constant annoyance to the Indian administration.

The smuggling of goods was a two-way traffic. The Indians resorted to clandestine export of Indian commodities, particularly food-stuffs, into the Portuguese territory. In a nutshell, the peoples across the border had a flourishing trade in contraband goods, only a part of which was detected by custom officers of both administrative authorities.

CONCLUSION AND OBSERVATIONS

The Post-Merger Transformation

In conclusion, it may be pointed out that the operation of the boundary in the Terekhol River had been rendered almost null and void with its ineffectual functioning in the pre-Merger Period with the unauthorised entry of contrabands. The former large staff of the Excise Department of Sāwantwādī could be reduced to the present required minimum as soon as the menacing problem of sumggling was brought down appreciably under control in the post-Merger Period.

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PROGRESS in Historical Geography (Baker, 1972) has surprisingly enough excluded contributions to Historical Geography of India, which may give a misleading impression that there is little that has been done by Indian scholars in this field of academic study. This impression may be corrected by reading Historical Geography : Trend Report (Razā, 1972) in A survey of Research in Geography (Indian Council of Social Science Research, New Delhi, 1972). In order to stimulate and promote research in Historical Geography, the following brief bibliography may prove helpful to persons interested in becoming conversant with conceptual framework, methodology and tools in this field of research.

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